PB89-117444

Superfund Record of Decision (EPA Region 5)
LaSalle Electrical Utilities Site
LaSalle, Illinois, March 1988

(U.S.) Environmental Protection Agency
Washington, DC

30 Mar 88

U.S. Department of Commerce
National Technical Information Service
NTIS

PB89-117444

United States
Environmental Protection
Agency

Office of
Emergency and
Remedial Response

EPA/ROD/R05-88/061
March1988

EPA

Superfund Record of Decision:

LaSalle Electrical Utilities, IL

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
NATIONAL TECHNICAL INFORMATION SERVICE
SPRINGFIELD, VA. 22161

50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. EPA/ROD/R05-88/061	2.	3. Recipient's Accession No.
4. Title and Subtitle SUPERFUND RECORD OF DECISION LaSalle Electrical Utilities, IL First Remedial Action			5. Report Date 03/30/88 6.
7. Author(s)			8. Performing Organization Rept. No.
9. Performing Organization Name and Address			10. Project/Task/Work Unit No. 11. Contract(C) or Grant(G) No. (C) (G)
12. Sponsoring Organization Name and Address U.S. Environmental Protection Agency 401 M Street, S.W. Washington, D.C. 20460			13. Type of Report & Period Covered 800/000 14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

The LaSalle Electrical Utilities (LEU) site is located in the city of LaSalle, west-central LaSalle County, in north-central Illinois. There are approximately 190 people and 70 residences located within one-eighth mile of the LEU property. LEU, a former manufacturer of electrical equipment, began operating prior to World War II. Between the late 1940s and 1978, PCBs were utilized in the production of capacitors. Undocumented reports allege the application of PCB-contaminated waste oils as a dust suppressant both on and off the property until as late as 1969. Following the regulation of PCBs, manifests document the disposal of PCBs at all regulated facilities. Beginning in September 1975, numerous government agencies conducted various inspections and issued complaints and orders to the LEU company as a result of its manufacturing and handling practices. Soil sampling conducted by the Illinois Environmental Protection Agency (IEPA) in December 1980 documented onsite PCB contamination. Continued soil sampling revealed offsite contamination in March and May 1981. The IEPA ordered the company to cease operations in May 1981. The U.S. EPA conducted Immediate Removal Actions that involved fencing the LEU property and capping a portion of the heavily contaminated onsite property; capping contaminated offsite property to the south of the site; and staging, sampling, and packaging PCB waste.
(See Attached Sheet)

17. Document Analysis a. Descriptors

Record of Decision
LaSalle Electrical Utilities, IL
First Remedial Action
Contaminated Media: debris, gw, sediments, soil
Key Contaminants: PCBs, VOCs

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report) None	21. No. of Pages 79
	20. Security Class (This Page) None	

PC15.95/MF 6.95

(See ANSI-Z39.18) See Instructions on Reverse

(Formerly NTIS-35)
Department of Commerce

ADMINISTRATIVE RECORD INDEX
LASALLE ELECTRICAL UTILITIES
LASALLE, ILLINOIS

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYP
			at Electric Utilities" along with attached PCB Fact Sheet.			
	272	86/02/00	OSC Report with Appendices A - Y; Immediate Removal Project in June 1984	CCastle - USEPA		Reports/Stu
	1	86/02/21	IEPA approval to McKesson Chemical Company to remove approximately 940 gallons of trichloroethylene from a tank located at the LaSalle Electrical Utilities site.	Ken Miller - IEPA	M. Downey-McKesson Chem.	Correspondenc
	2	86/03/07	Agenda for a meeting between IEPA and USEPA regarding Electrical Utilities Company, LaSalle, Illinois.			Other
	5	86/03/13	LaSalle Immediate Removal of 250-55 gallon drums of PCB contaminated oils, solvents and paint; three drums capacitor parts; and used protective clothing, sampling materials, plastic, oil dry and miscellaneous debris.	Ken Miller - IEPA	file	Memorandum
	25	86/04/00	Technical Assistance Team Draft Emergency Action Plan For Yellow Cab & Transfer Property LaSalle, Illinois	Roy F. Weston, Inc.	USEPA	Reports/St.
	2	86/05/00	Status Report: Electrical Utilities Company/LaSalle	Greg Michaud - IEPA		Fact Shee:
	4	86/05/23	LaSalle - Survey of residents; Outline of neighborhood survey discussion items	SCraven & GMichaud - IEPA	MMcCue & DCaplice - USEPA	Memorandum
	3A	86/07/08	Cover letter and copy of report on health effects of workers exposed to PCBs at EUC	JKeller - IDPH	EMaxwell - USEPA	Reports/Stu

ADMINISTRATIVE RECORD INDEX
LASALLE ELECTRICAL UTILITIES
LASALLE, ILLINOIS

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYPE
	1	86/07/10	ELC Residential Survey on Attitudes toward PCB Contamination on property	Greg Michaud - IEPA	Gloria Craven - IEPA	Memorandum
	2	86/07/16	PCB Cleanup Levels for the LaSalle Operable Unit	DMCaplice - USEPA	JHooker - IEPA	Correspondence
	258	86/08/00	Final Report Phased Feasibility Study for Remediation of PCB Contamination at the LaSalle ELC Site	Black & Veatch	IEPA	Reports/Studies
	39	86/09/23	Record of Decision (ROD)	WWCampbus - USEPA		Memorandum
	1	86/09/26	Results of water sample testing taken from a well at a private residence.	Greg Michaud - IEPA	Mr. & Mrs. Ritt	Correspondence
	37	86/12/00	Sampling Plan for the Soil Gas Survey at ELC Phase II RI	Ecology & Environment	IEPA	Reports/Studies
	300	86/12/00	CEC Report with Appendices A - Q; Immediate Removal Project April 17, 1985 to June 24, 1985	JBarrette - USEPA		Reports/Studies
	37	87/01/09	Accendum to QAPP for the RI/FS of the ELC	Ecology & Environment	IEPA	Reports/Studies
	24	87/01/19	Hazardous and Toxic Materials Team Site Safety Plan	Ecology & Environment		Reports/Studies
	47	87/03/00	Hydrogeologic Sampling Plan for ELC for Phase II RI	Ecology & Environment	IEPA	Reports/Studies
	3	87/03/12	PCB abatement - Community of LaSalle limits of excavation along St. Vircents Street.	A.Whitman - Ecology & Environment	John Hooker - IEPA	Correspondence
	44	87/10/27	Commercial Proposal for the LaSalle ELC PCB Abatement	Westinghouse Electric Corp	IEPA	Other

70

ADMINISTRATIVE RECORD INDEX
LASALLE ELECTRICAL UTILITIES
LASALLE, ILLINOIS

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TY
			Community of LaSalle			
	24	87/11/19	Memo. addressing the issue of groundwater removal technologies and a report entitled "Identification and Preliminary Screening of Remedial Action Technologies".	Thomas Buechler-Black & Veatch	John Hooker - IEPA	Reports/Stu
	509	87/12/00	Final Supplemental RI Report for ELC Volumes 1 and 2	Ecology & Environment	IEPA	Reports/St
		88/01/00	Proposed Plan LaSalle Electrical Utilities	USEPA		Other
	470	88/01/00	Preliminary Report Feasibility Study for Remediation of Groundwater and PCB Contamination at the LaSalle ELC Site Volumes 1 and 2	Black & Veatch	IEPA	Reports/St
		88/01/15	Letter to R.Carlson of IEPA requesting State ARARs	Constantelos,USEPA	Carlson, IEPA	Correspon
		88/01/17	Notice of Public Hearing re:LaSalle Electrical Utilities Superfund PCB Abatement Project RI/FS	IEPA		Other
		88/01/28	Memo re: Review of draft LaSalle Electrical Utilities ROD	D.M.Caplice	USEPA Staff	Memoranc
		88/02/29	LaSalle Electrical Utilities Superfund Abatement Project (RI/FS) Responsiveness Summary	IEPA		Reports/S
		88/03/21	Memo re: Final LaSalle Electrical Utilities ROD	D.M. Caplice	USEPA Staff	Memoranc

EPA/ROD/R05-88/061
LaSalle Electrical Utilities, IL
First Remedial Action

16. ABSTRACT (continued)

material for future disposal. The first operable unit ROD, signed September 19, 1986, addressed offsite soil contamination. This second remedial action operable unit addresses PCB and VOC contamination in soil, sediments, building structures, and ground water.

The selected remedial action for this site ~~includes:~~ is proposed in the report excavation and onsite incineration of contaminated soil and replacement with clean fill; high pressure flushing and mechanical cleaning of affected sewer lines; excavation and onsite incineration of contaminated sediment from the unnamed creek downstream of the storm sewer discharge; ground water collection and onsite treatment using phase separation, filtration, and air stripping with discharge to the local waste water treatment plant via sanitary sewers; and demolition and offsite disposal of contaminated LEU building structures. The estimated present worth cost for this remedial action is $34,495,180.

REMEDIAL ALTERNATIVE SELECTION
Record of Decision

SITE NAME AND LOCATION

LaSalle Electrical Utilities Site, LaSalle, Illinois

STATEMENT OF BASIS AND PURPOSE

The decision document presents the selected remedial action for the LaSalle Electrical Utilities (LEU) site developed in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 and consistent with the National Oil and Hazardous Substances Pollution Contingency Plan to the extent practicable.

This decision is based upon the contents of the Administrative Record for the LEU site.

The State of Illinois concurs on the selected remedy.

DESCRIPTION OF THE REMEDY

The U.S. EPA has elected to split the site into two separate operable units. The first operable unit dealt with soil contamination not on the LEU property, while the second operable unit (this decision) addresses all remaining contamination.

The selected remedy consists of the following major components:

- Excavation of contaminated soil from the LaSalle Electrical Utilities (LEU) property;
- High pressure flushing and mechanical cleaning of contaminated sewer lines;
- Excavation of contaminated sediment from the unnamed creek downstream of the storm sewer discharge;
- Incineration of the contaminated soil and sediment with a mobile, on-site, thermal destruction unit;
- Demolition and disposal of the contaminated LEU buildings;
- Construction of a ground water collection system on and near the LEU property; and
- Construction of an on-site treatment system that will process the contaminated ground water collected.

DECLARATION

The selected remedy is protective of human health and the environment, attains Federal and State requirements that are applicable or relevant and appropriate to this remedial action and is cost-effective. This remedy satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility or volume as a principal element and utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable.

March 30, 1988
Date

Robert Springer for
Valdas V. Adamkus
Regional Administrator

SUMMARY OF REMEDIAL ALTERNATIVE SELECTION
LASALLE ELECTRICAL UTILITIES
LASALLE, ILLINOIS
March 29, 1988

I. SITE NAME, LOCATION, AND DESCRIPTION

The LaSalle Electrical Utilities (LEU) National Priorities List (NPL) site is located in west-central LaSalle County, in the city of LaSalle in north-central Illinois (SE 1/4, SW 1/4 of Section 3, T33N, R1E). The 1980 census data showed the City of LaSalle to have a population of 10,347 (Figure 1).

The LEU property (located at 2427 St. Vincent Avenue) has remained essentially undisturbed since the plant was closed in 1981. Five buildings, interconnected to form one main complex, remain on the property. This complex includes an office building, two metal buildings, a brick building, and a Quonset building. Other small buildings remaining on the property include a pump house, two small hose houses, a thinner shed, and a sandblasting shed. West of the Quonset building is a small storm water holding pond which receives precipitation run-off from an asphalt lot south of the property. Also west of the Quonset building is a small fenced area that formerly contained a small incinerator. At present, a chain-link fence surrounds approximately one half of the property. The remainder of the property consists of a large open field (Figure 2).

The bedrock in the area consists primarily of shale, sandstone, dolomite, and limestone. The upper bedrock is a highly weathered shale found at a depth of approximately 20 to 25 feet. Overlying the bedrock is approximately 10 feet of glacial till. Over the till is an interbedded unit of sand, silt, and clay.

There are four major hydrogeologic aquifers which occur in this area of Illinois. The Mt. Simon-Elmhurst aquifer, the deepest of the four, is not utilized in the LaSalle area due to its extreme depth and its high mineral content. The next aquifer is the Ironton-Galesville which serves the three public water supply wells in the nearby community of Peru, Illinois. The shallow dolomite, and the sand and gravel aquifers in the area serve many domestic and public wells.

Approximately 70 residences are located within 1/8 mile of the LEU property. Based on the 1980 census data showing approximately 2.7 individuals per household in the area, it is estimated that these residences house about 190 people. The land use to the north of the property is rural with an agricultural field separating the facility from a residential development. Immediately south of the site are several commercial developments, including a furniture store, a gasoline/fuel oil distributor, and a restaurant. East of the facility is the residential area that was previously addressed, while a mixture of small businesses and residences lie to the west.

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

LEU is a former manufacturer of electrical equipment. Operations at the plant began prior to World War II, and in the late 1940s the plant began

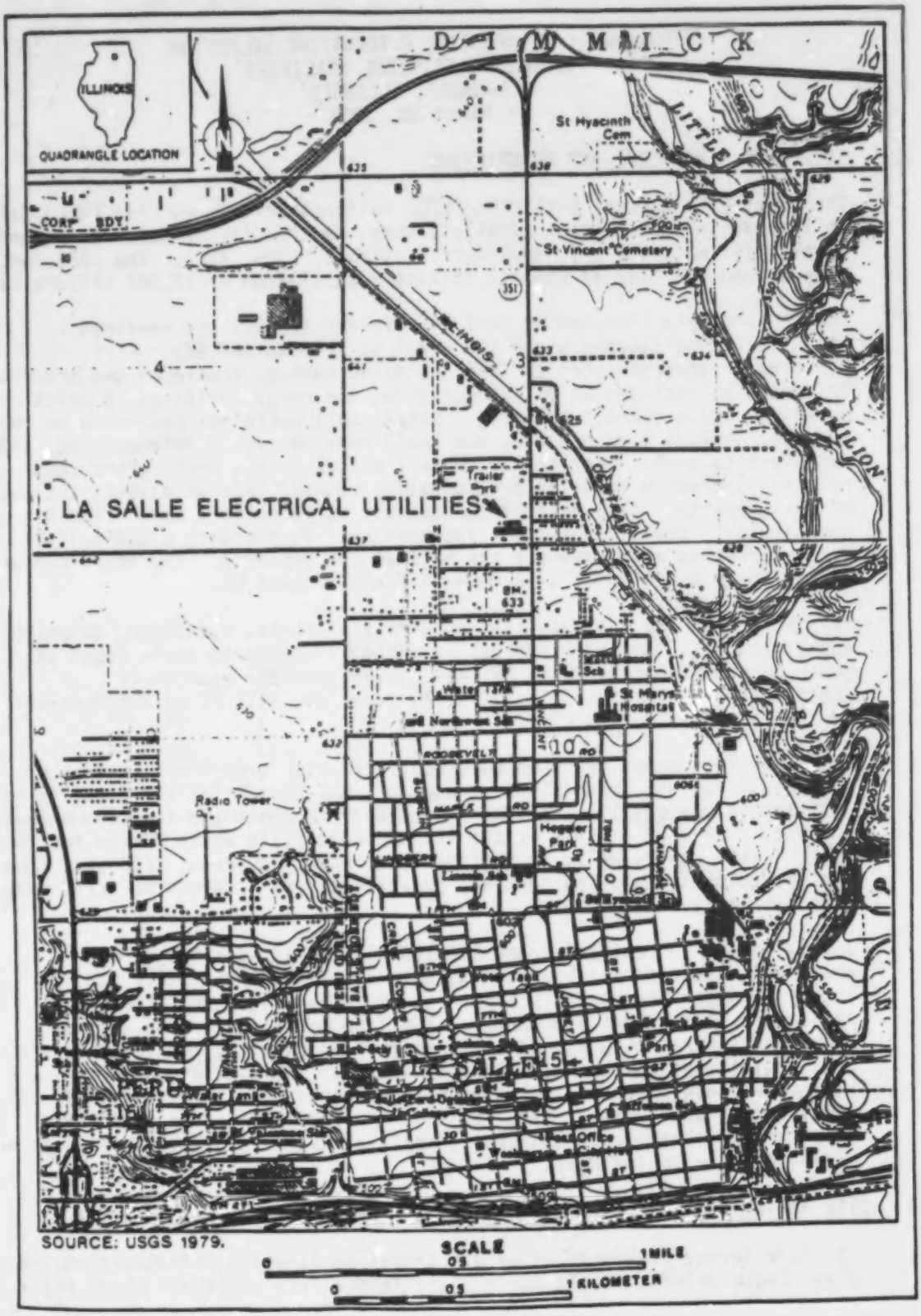
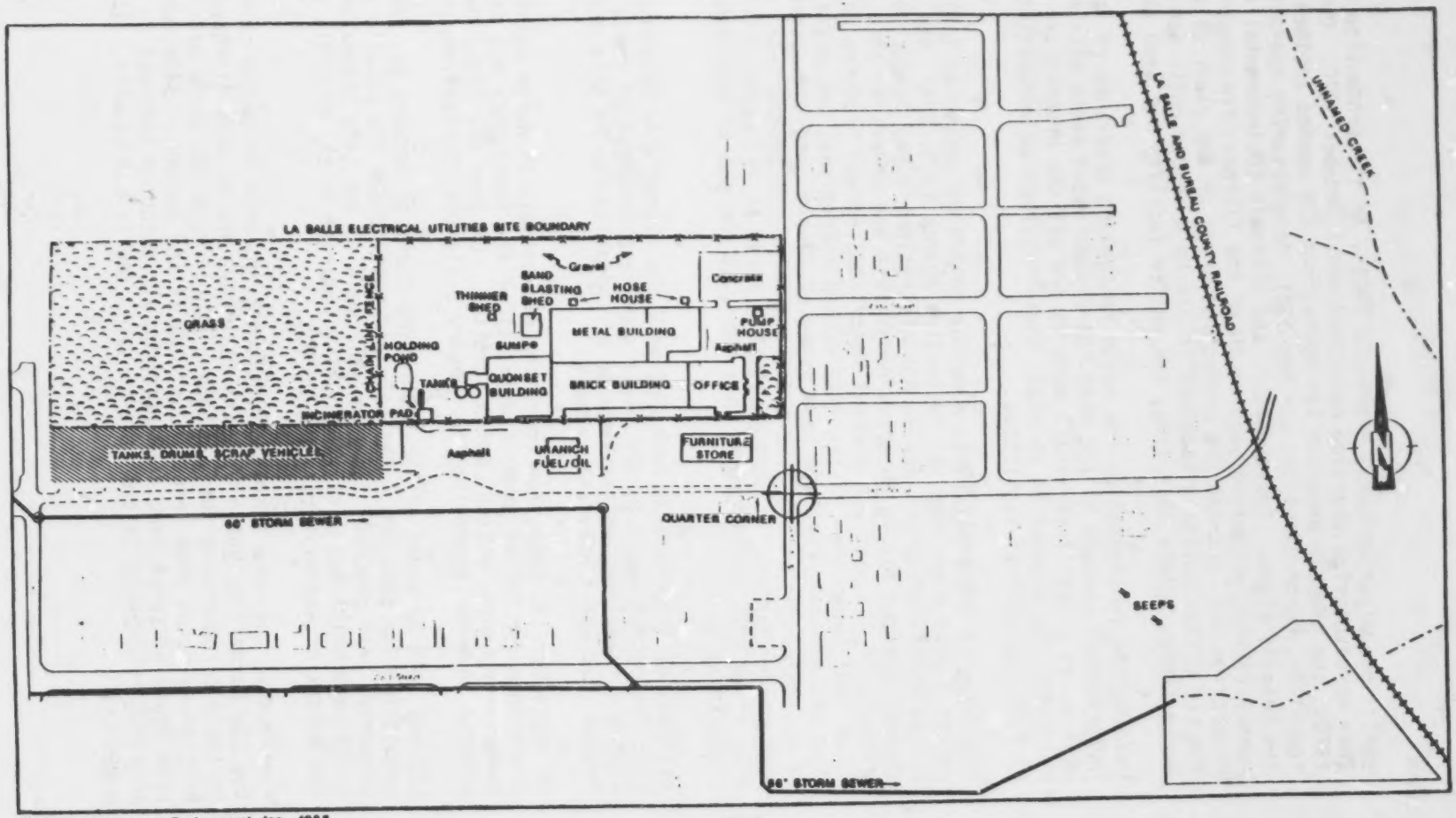


FIGURE 1 SITE LOCATION MAP



SOURCE: Ecology and Environment, Inc., 1987

SCALE

0 200 400 600 800 1000 FEET

0 100 200 300 METERS

FIGURE 2 SITE FEATURES MAP

utilizing polychlorinated biphenyls (PCBs) in the production of capacitors. This manufacturing practice continued until October 1978. During the 1970s, the company expanded its operations and opened another plant in Farmville, North Carolina. In May 1981, manufacturing operations ceased at the LaSalle plant. Subsequently, the Illinois Environmental Protection Agency (IEPA), enforcing Section 34 of the Illinois Environmental Protection Act, ordered the production areas of the plant to be sealed. The LEU office building remained in use by a lessee until some time in the early 1980s. Since that time, the entire facility has been abandoned.

Information is limited on the waste management practices of the company. Undocumented reports allege that PCB-contaminated waste oils may have been applied as a dust suppressant both on and off the property as late as 1969. Following the regulation of PCBs, inventory reports document the disposal of PCBs at approved facilities.

Beginning in September 1975, numerous government agencies including the United States Environmental Protection Agency (U.S. EPA), the IEPA, and the Occupational Safety and Health Administration (OSHA) conducted various inspections and issued numerous complaints and orders to the LEU company as a result of its past and present manufacturing and handling practices. Since 1981, when the LEU facility ceased operations, the actions of the IEPA and the U.S. EPA have been aimed at determining the nature and extent of contamination at the site and determining the appropriate remedies for that contamination. A chronological listing of all major actions at the site since 1975 is contained in a table at the end of this summary (Attachment I).

Analysis of site records revealed only one Potentially Responsible Party, LEU, from which the U.S. EPA could seek reimbursement of costs associated with the investigation and removal of contamination at this site. LEU, however, is not financially viable.

On September 19, 1983, now operating exclusively in North Carolina, the LEU petitioned for relief under Chapter 11 of the Bankruptcy Act in the U.S. Bankruptcy Court, Wilson, North Carolina. On June 26, 1986, the court entered an order approving the company's planned liquidation.

LEU was sold by order of the Bankruptcy Court on January 20, 1984, to Heede Industries for $800,000. The sale did not include the LaSalle plant or property. All proceeds from the sale went to the Lake Shore National Bank in Chicago which had a valid security interest in all of LEU's assets in the amount of approximately $1,908,000.

Previously, the Lake Shore National Bank not only found the purchaser for the LEU Farmville, North Carolina facility, but it also financed the purchase by advancing the purchase price of $800,000 in return for two promissory notes from Heede Industries in the amount of $400,000 each. Lake Shore National Bank also retained its security interest in the LEU accounts receivable to the date of sale, and in the LaSalle, Illinois property.

The U.S. EPA and the State of Illinois both filed claims in the bankruptcy action for past and future costs associated with their removal and remedial actions at the site. There was no money in the estate, however, to pay these costs. The only asset which could be applied toward these costs is the LaSalle, Illinois property itself. (Presumably, after cleanup, the LaSalle property will have a positive cash value.)

The amended plan approved by the Bankruptcy Court on June 26, 1986, provided that the LaSalle, Illinois property first would be offered to secured lien holders (Lake Shore National Bank, Realtor Developers, and Equity Research). If the secured lien holders refused to accept title, their claims would become unsecured claims, and LEU would retain title to the property. According to the amended plan, the U.S. EPA and the State of Illinois would then be given liens on the property for the costs of their cleanup work at the site (a lien to the U.S. EPA for 90% of the costs, and a lien to the State of Illinois for 10% of the costs).

III. COMMUNITY RELATIONS

The Superfund activities at the LaSalle site have been followed closely and consistently by the local press. Interest in the activities at the site has been high because the residential area is directly affected by the work outlined in the original (August 29, 1986) Record Of Decision (ROD). Local and State elected officials, as well as the local news media representatives, have maintained a constant and serious interest in the activities at the site.

On January 18, 1988, draft copies of the FS and the U.S. EPA's Proposed Plan (Attachment II) for Remedial Action were made available to the residents and other interested parties for their review and comment. A press release by the IEPA announced the availability of the reports, the locations in the community where they were available for viewing, the dates of the official public comment period (January 18 to February 19, 1988), and the February 17, 1988 public meeting.

The IEPA has conducted a thorough and comprehensive community relations program in the area. The program included regular distribution of fact sheets, public meetings (both large formal ones and small informal ones), and dialogue with area residents and officials.

On February 17, 1988, a public meeting was held at a nearby motel. The purpose of the meeting was to present the results of the FS and the proposed remedial alternatives. In addition, both oral and written comments and questions pertaining to this remediation were solicited.

At the hearing, both the local and state officials expressed their support for the proposed alternatives. While the citizens at the meeting generally supported the alternatives, they did express the following concerns:

1. The local residents stated that they would like to see the site restored to usuable commercial property capable of supplying employment to the local residents.

2. Residents expressed a stated desire to amend or modify the existing cleanup contract (for work in the residential area as outlined in the 1986 ROD) to include this cleanup of the LEU property. They felt that this type of change would allow site work to be completed in a more timely manner.

   The Remedial Action (RA) being initiated under this ROD is not an amendment or continuation of the current RA presently being undertaken in accordance with the 1986 ROD, but is a separate RA start. Federal procurement regulations outline the required method of procuring construction services during a Superfund RA. The regulations clearly state that formal advertising (40 CFR 33.405 - 33.430) is to be used. The regulations further state that noncompetitive negotiation (40 CFR 33.605) can only be used when other procurement methods are inappropriate because:

   a. the item is only available from one source;
   b. a public emergency exists;
   c. competition, after solicitation, is inadequate; or
   d. the U.S. EPA Award Official authorizes noncompetitive negotiation, subject to tbe limitations of 40 CFR 33.715(a)(2).

   None of the conditions stated above apply at this site. The most plausible factor would be (b), the existence of a public emergency. However, formal advertising cannot be waived in the Superfund remedial program on the basis of a claimed emergency situation since the U.S. EPA handles such emergencies under the removal program. In addition, a declaration of an emergency under State law does not necessarily constitute an emergency under U.S.EPA's Superfund criteria.

   Formal advertising in accordance with Federal regulations, should take, from beginning to end, approximately four months. This process can begin as soon as adequate criteria are available during Remedial Design to prepare a procurement package. Finally, based on the results of the competetive procurement for the RA outlined in the 1986 ROD, there is no reason to believe that competition will be inadequate.

The Responsiveness Summary to the formal public comments which were received is attached to this summary (Attachment III).

IV. SCOPE AND ROLE OF OPERABLE UNIT OR RESPONSE ACTION

In March 1986, after review of the Draft Remedial Investigation (RI) report, the U.S. EPA elected to split the site into two separate projects. The RI had adequately characterized the soil contamination in the area. However, it had failed to sufficiently determine the extent of ground water contamination which was emanating from the LEU property. The first half of the project dealt with soil contamination not on the LEU property, while the second half of the project (this decision) addresses all remaining contamination.

V. SITE CHARACTERISTICS

Soil and Sediment

The primary contaminants of concern in the soil on the LEU property are PCBs. Other materials, primarily volatile organic compounds (VOCs), were detected above normal background levels in this area, but these were only found in a localized area west of the manufacturing facility. During the site work for the Supplemental Remedial Investigation (RI), field screening of the soil borings from this area (directly west of the LEU plant) indicated the presence of high levels of VOCs. However, no samples from this area were sent to a laboratory for detailed organic analysis because the nature of the contaminants had already been identified by analysis of water samples from the monitoring well located at that location (G105).

Concentrations of PCBs in the composite soil samples on the property range from as low as 0.38 parts per million (ppm) to as high as 17,000 ppm, but typically average over 1,200 ppm in the first foot of soil. Depths of contamination range from 1 to 2 feet in most areas, to as much as 5 feet in a localized area directly adjacent to the west side of the facility. Based on the cleanup levels selected in the 1986 ROD for the residential soil contamination at this site (5 ppm to a depth of 1 foot and 10 ppm at depths greater than 1 foot), the total volume of soil that is contaminated on the LEU property is estimated to be 23,500 cubic yards (cy). This number assumes that 3 feet of soil, or approximately 7,800 cy, beneath the plant buildings is also contaminated and must be addressed during the final remediation.

The sewer system investigation focused on storm and sanitary sewers originating on the LEU property and the unnamed creek nearby which is the point of discharge for one of the storm sewers. Sediment samples throughout the sewer system were found to contain PCB concentrations between 28 and 5700 ppm. Sediment samples from the unnamed creek contained PCB contamination with concentrations averaging 18 ppm in the first 200 feet after discharge and only 1.7 ppm at a point 1000 feet downstream. This creek empties into the Little Vermilion River about 3,500 feet downstream, and the Little Vermilion empties into the Illinois River approximately 2 miles downstream (Figure 3). Approximately 100 cy of sediment in the creek are contaminated and will be addressed along with the LEU soil.

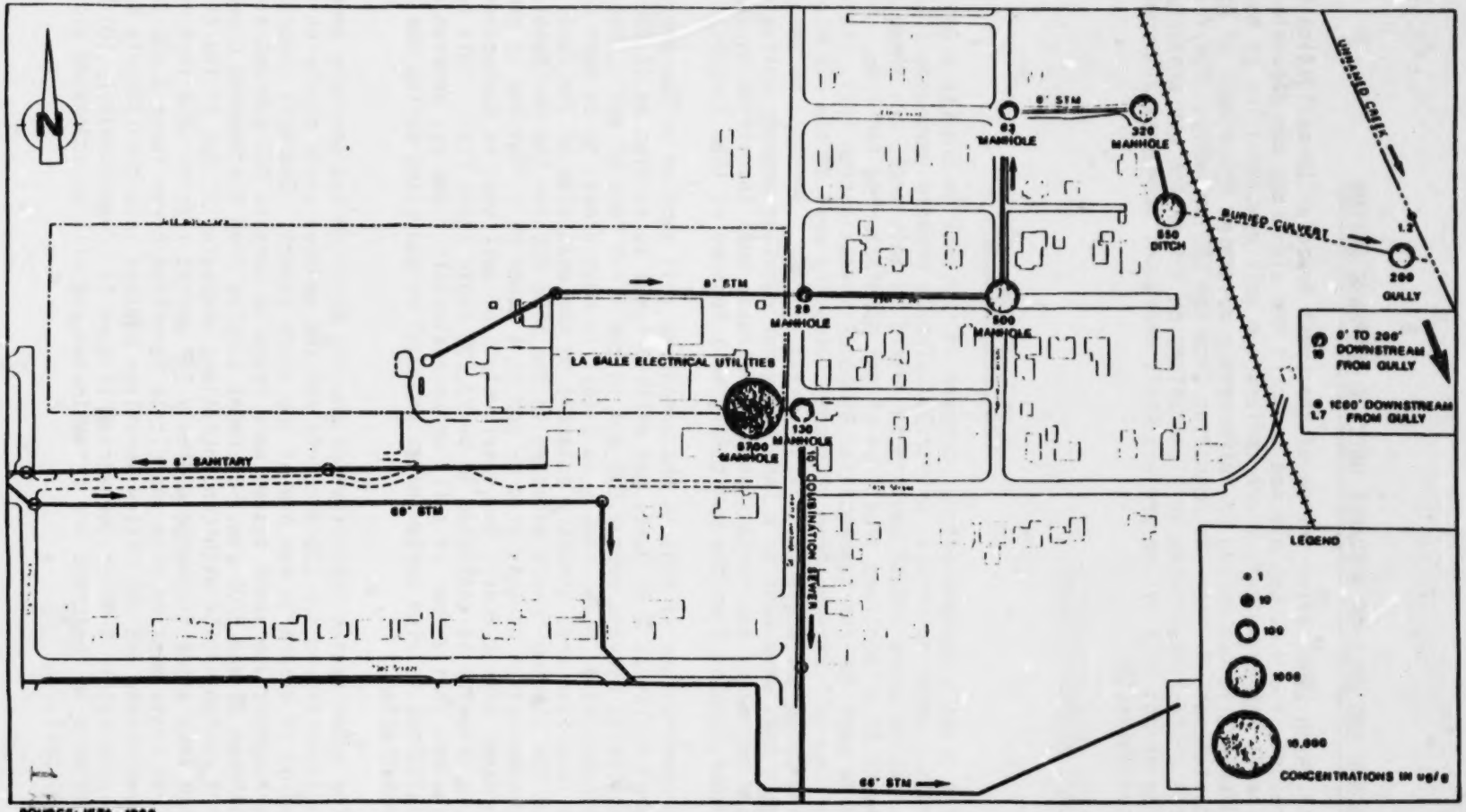


FIGURE 3 PCB CONCENTRATIONS IN SEWER SEDIMENT

A detailed presentation of the soil and sediment contamination is presented in the RI report which was prepared by IEPA. Additional information related to the recent soil boring and field screening activities is contained in the Supplemental RI Report.

Ground Water

Monitoring wells at the site were sampled and analyzed for both PCBs and VOCs. PCB contamination over 10,000 parts per billion (ppb) was detected in ground water directly west of the LEU buildings, but the average PCB concentration in the ground water is approximately 100 ppb. A total of 12 different VOCs were detected in various wells at the site. Like PCBs, the highest levels were found directly west of the LEU building in a well placed where heavy VOC contamination was found in the soil (monitoring well G105). An oil layer was found above the ground water in this well, but was believed to result from a denser oil in the heavily contaminated soil settling and collecting in the well hole.

The primary VOCs identified during the RI were: 1) trichloroethylene; 2) trans-1,2-dichloroethylene; 3) 1,1,1 trichloroethane; 4) 1,1 dichloroethane; 5) vinyl chloride; 6) 1,1 dichloroethylene; 7) toluene; 8) tetrachloroethylene; 9) ethylbenzene; and 10) xylene. (A complete list of the contaminants identified at the site is contained in Table 2-1 of the Supplemental RI Report.) Contour maps of trichloroethylene and trans-1,2 dichloroethylene ground water contamination show results similar to the PCB results. The highest concentrations of these contaminants are found directly west of the LEU buildings, and the average concentrations on the property are approximately 100 ppb. The contaminant plumes are moving off the LEU property in an east and southeast direction (Figures 4 to 6). A detailed discussion of the ground water investigation and contamination can be found in the Supplemental RI Report.

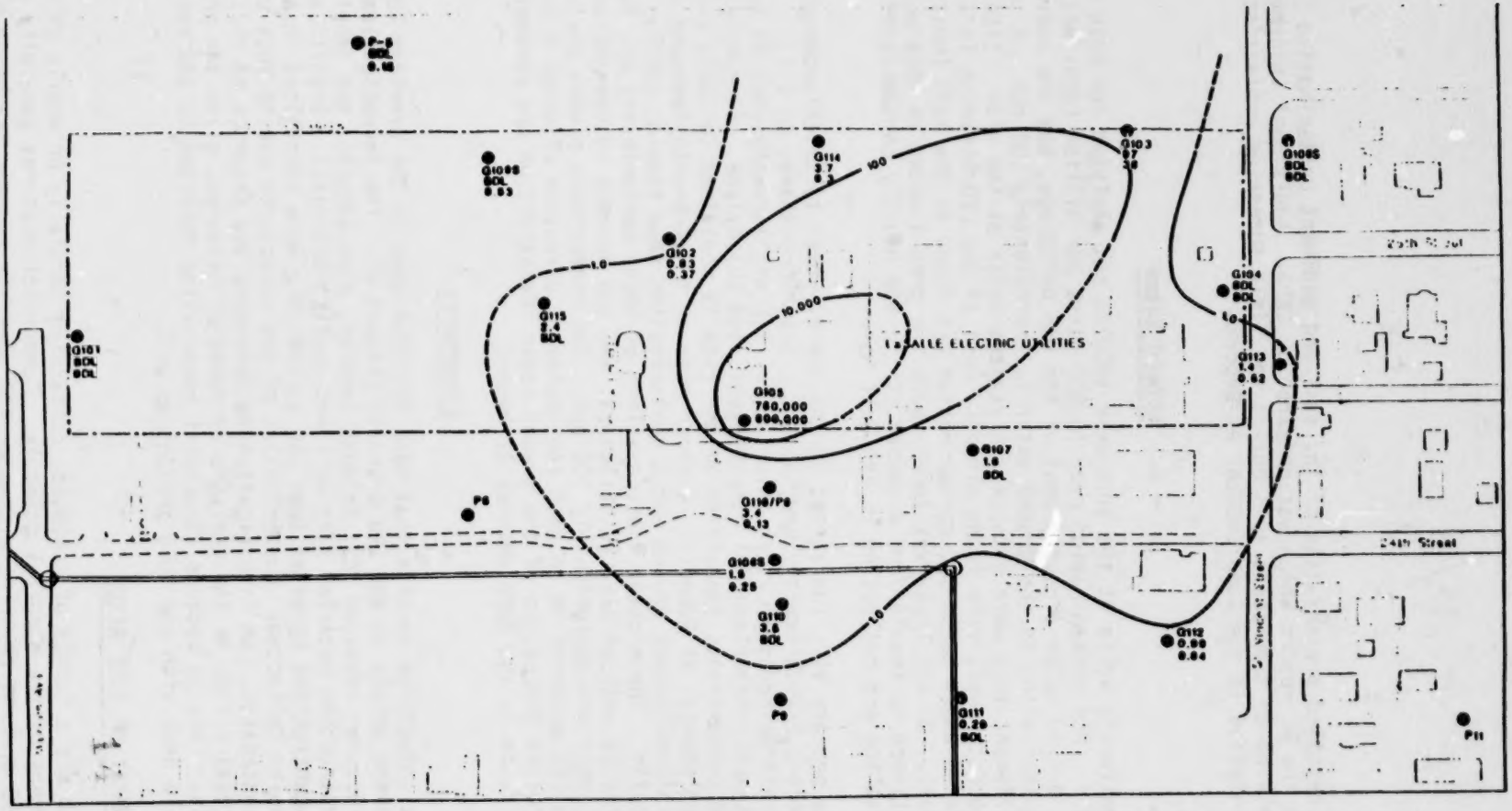
Structures

The structures on-site that were not addressed in the previous ROD are limited solely to the LEU property (Figure 2). The investigation of these structures revealed PCBs in dust samples, wipe samples, and samples of construction material (dry wall and roofing material). Significant concentrations (greater than 150 ug/100 cm^2) were identified in all surface samples collected. Contamination of the structures due to VOCs was not investigated. An investigation to determine the presence of VOCs was not a necessary step in the analysis of remedial measures, given the presence of PCBs. This is because structural remediation selected to address the PCBs would deal with the VOCs present as well.

VI. SUMMARY OF SITE RISKS

13

PCBs are a family of compounds containing partially or wholly chlorinated isomers of the biphenyl molecule. Commercial mixtures generally contained 40-60 percent chlorine with over 200 possible isomers, although only about



LEGEND

- ● MONITORING WELL
- # ROUND 1 SAMPLING
- # ROUND 2 SAMPLING

BDL BELOW DETECTION LIMIT

CONCENTRATIONS IN ug/L

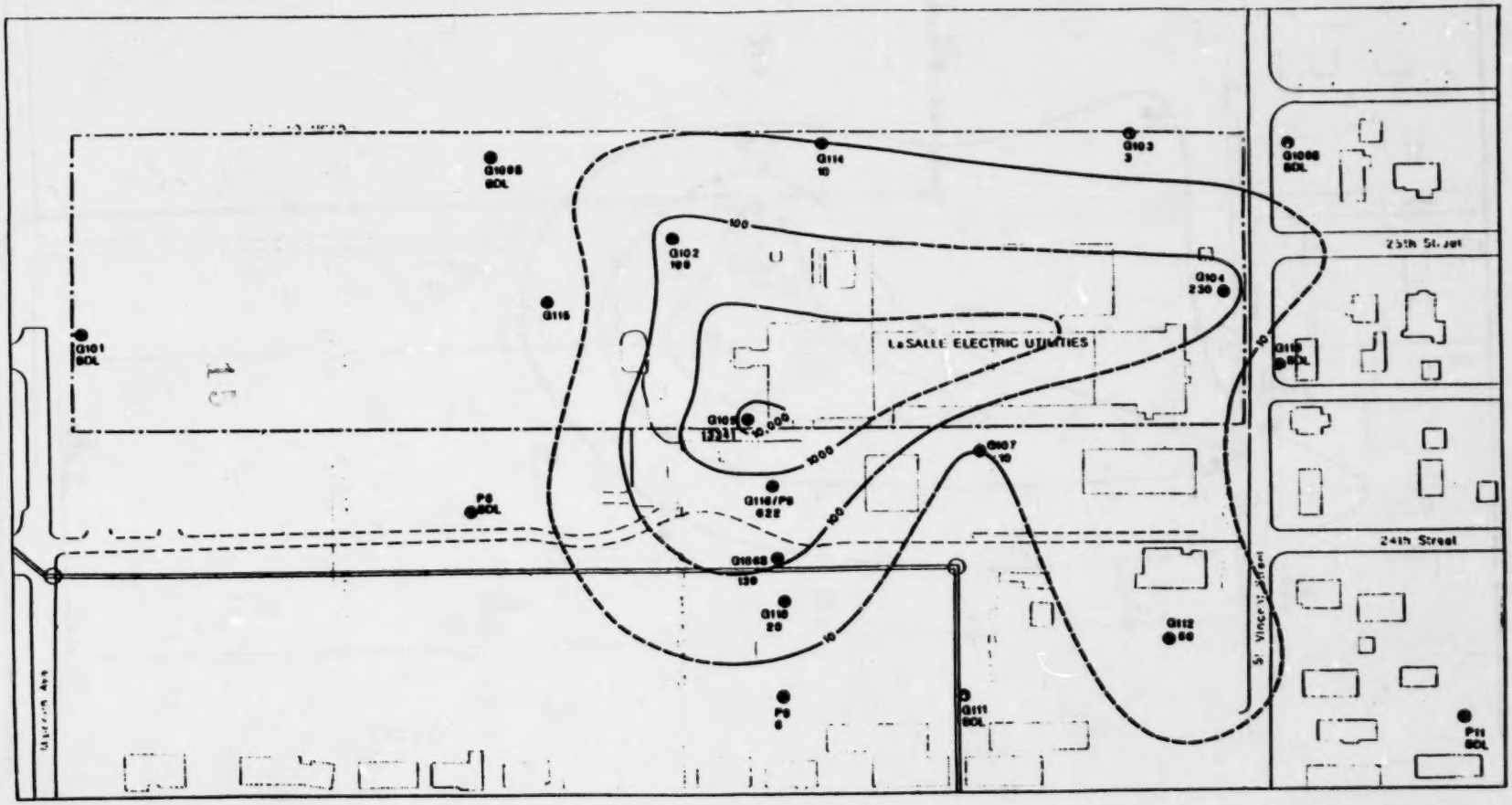
CONTOUR LINES DASHED WHEN INFERRED

SCALE

0 100 200 300 400 500 FEET

0 20 40 60 80 100 METERS

FIGURE 4 CONTOUR MAP OF HIGHEST PCB CONCENTRATIONS IN MONITORING WELLS, SAMPLING ROUNDS 1 AND 2



LEGEND

BDL: BELOW DETECTION LIMIT

CONCENTRATIONS IN ug/L

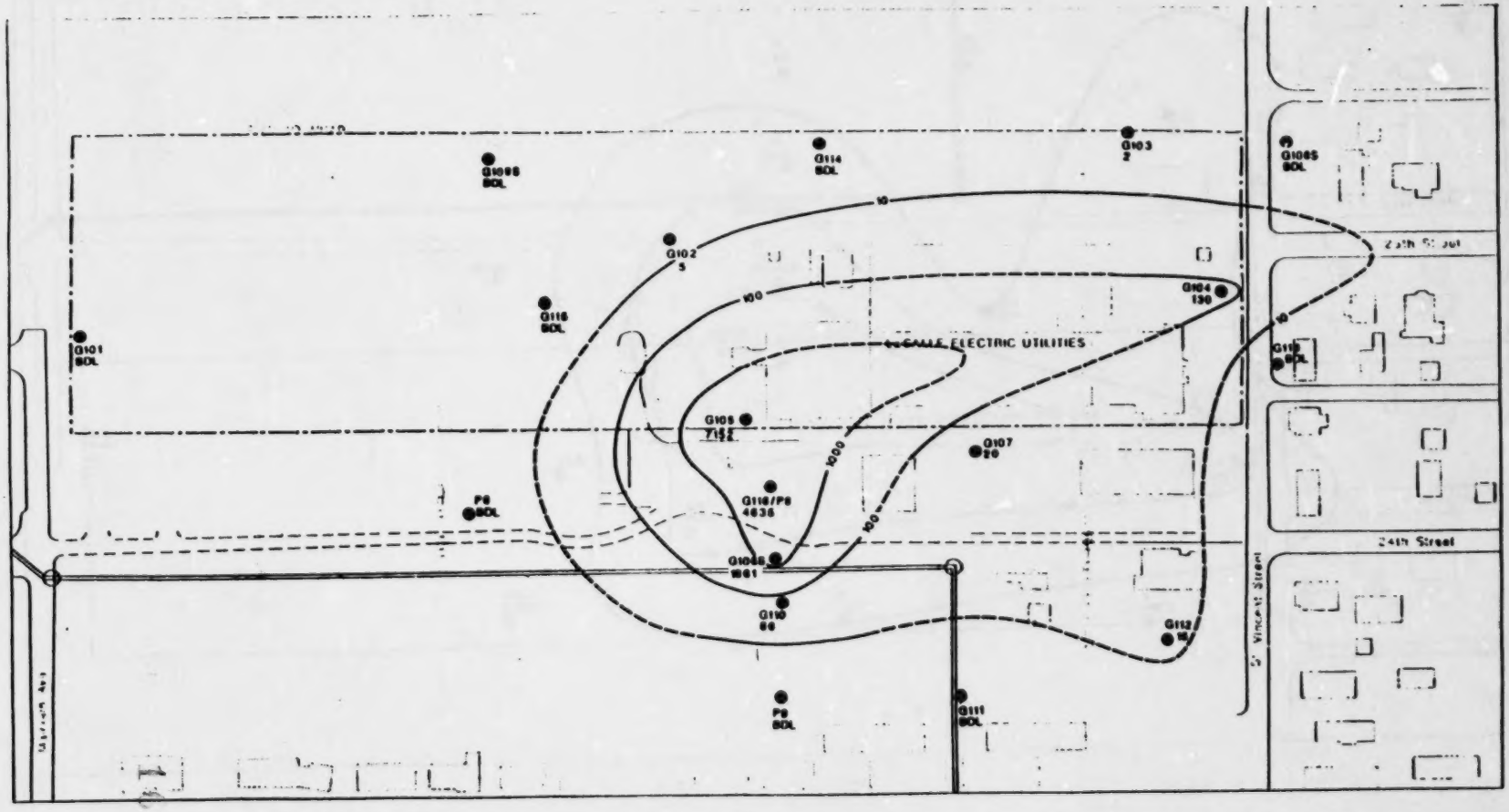
CONTOUR LINES DASHED WHEN INFERRED

SCALE

0 100 200 300 400 500FEET

0 20 40 60 80 100METERS

FIGURE 6 CONTOUR MAP OF TRICHLOROETHENE CONCENTRATIONS IN MONITORING WELLS



LEGEND
BDL: BELOW DETECTION LIMIT
CONCENTRATIONS IN ug/L
CONTOUR LINES DASHED WHEN INFERRED

FIGURE 6 CONTOUR MAP OF TRANS-1,2 DICHLOROETHENE CONCENTRATIONS IN MONITORING WELLS

10 of these isomers were ever distributed in the U.S. using an aroclor designation for identification. The PCB mixtures are thermally stable, have low solubility in water, low vapor pressure, high boiling point, and a high dielectric constant. PCBs adsorb strongly to soils, especially those with high organic content.

The specific PCB aroclors found at the site have water solubilities of 54 ug/l for aroclor 1248 and 12 ug/l for aroclor 1254. The PCB contamination idenfified in the ground water at the site is believed to be proportional to the concentration of dissolved and suspended solids found in the water. The concentrations of PCBs in the ground water are expected to be minimized by excavation of the contaminated soil. The natural affinity of the PCBs to soil limits the amount of surface migration from the site. Therefore, the only significant migration that is likely to occur would be the result of tracking and/or blowing of the contaminated soil from one location to another.

VOCs, as a group, are generally soluble in water, readily transported, and easily treated. A discussion of the properties of each of the specific VOCs found at the site is contained in Section 5.4.3 of the Supplemental RI report. An in-depth evaluation of the extent to which the release of these contaminants may endanger human health and the environment was prepared by an IEPA contractor and is contained in Appendix D to the Feasibility Study (FS).

PCBs are considered to have slight acute toxicity, but are resistant to natural biological degradation. The toxicological properties of PCBs appear to vary widely according to various parameters, but they have been identified as carcinogenic, mutagenic, and teratogenic in animals. Human toxicological data is limited, but PCBs have been found to be able to enter the human body by ingestion, inhalation, and dermal contact. PCBs bio-accumulate in lipids and fatty tissues, and the U.S. EPA has documented that chronic exposure to PCBs in humans can cause skin lesions (chloracne), liver dysfunction and possible permanent liver damage, and possibly cancer. Other symptoms of systemic PCB poisoning include nausea, vomiting, weight loss, jaundice, headaches, edema, and abdominal pain.

With regard to the ingestion of contaminated soils, the U.S. EPA used the existing Carcinogen Assessment Group (CAG) for PCBs and calculated that if the daily intake of PCBs would be limited to 2.3 ng/kg-bw/day (nanograms per kilogram of body weight per day) then the lifetime cancer risk would be limited to approximately 1 in 100,000 (10^{-5}). This intake level corresponded to an acceptable soil concentration of 0.5 to 5.0 ppm. As part of this study, the U.S. EPA reviewed CAG levels for PCBs which were recently revised to 1.3 ng/kg-bw/day for a 1 in 100,000 (10^{-5}) lifetime cancer risk. The risk level corresponds to an acceptable soil concentration of .03 to 3.0 ppm.

The majority of the VOCs found at the site are not considered to be acutely toxic, teratogenic, or mutagenic. However, toxicity studies suggest that liver and kidney damage, marked tachycardia, central nervous system depression, cardiovascular changes, renal toxicity, hepatoxicity, and

endema of the lungs may result from acute and chronic exposure to the specific VOCs identified. Vinyl chloride and trichloroethylene are considered to be human carcinogens, while tetrachloroethylene; 1,1,1-trichloroethane; and chloroform are identified as possible human carcinogens based on toxicity studies with laboratory animals.

On the basis of their occurrence and concentration at the site and their toxicologic effects, eight contaminants were selected as being representative of the constituents detected in various environmental media at the site. They were as follows; chloroform, 1,1-dichloroethane, 1,1-dichloroethylene, PCB's, tetrachloroethylene, 1,1,1-trichloroethane, trichloroethylene and vinyl chloride. The sum of the cancer risk from these chemicals is 1.5×10^{-3}. This exceeds the risk range of 1×10^{-4} to 1×10^{-7} which the U.S. EPA has decided as the acceptable range.

VII. DOCUMENTATION OF SIGNIFICANT CHANGES

There are no significant changes from the preferred alternative described in the Proposed Plan (Attachment IV).

VIII. DESCRIPTION OF ALTERNATIVES

In response to the health threat posed by the site, an FS was initiated to evaluate the contamination that was found on the LEU property, in the sanitary and storm sewers at the site, and in the sediment of the unnamed creek at the discharge point of a site storm sewer. A prior study (1986 PFS) examined the contamination in the residential area of the site and along St. Vincent Avenue north and south of the property.

Specifically, the objectives of this alternatives evaluation were: 1) to identify remedial alternatives that would reduce or eliminate the threat to human health and the environment which is present as a result of the PCB-contaminated soil and sediment at the LEU property and in the sewer system at the site, 2) to identify and evaluate alternatives that would reduce or eliminate the threat to human health and the environment that exists as a result of PCB and VOC contamination of the area ground water, and 3) to identify alternatives for cleaning and decontaminating the structures remaining on the LEU property.

To this end, remedial alternatives were examined in detail. The process involved screening according to three basic steps: 1) identification and screening of technologies on the basis of effectiveness, technical feasibility, level of development, and applicability to the specific waste type; 2) development of alternatives by combining technologies that pass screening; and 3) evaluation and comparison of the alternatives on the following basis: protection of human health and the environment; compliance with appropriate or relevant and applicable regulations; long-term effectiveness and performance; reduction of toxicity, mobility or volume; short-term effectiveness; implementability; cost; support Agency acceptance; community acceptance.

Description of Alternatives for Soil and Sediment Remediation:

Technology Screening and Evaluation

Approximately 30 different types of technologies were evaluated for use on the contaminated material. Technology screening was conducted on the basis of effectiveness, feasibility, level of development, and applicability to the waste type.

Some technologies were eliminated from further evaluation because they represented innovative or emerging technologies that have not been sufficiently proven. However, innovative incineration processes were not rejected during this screening since the technology as a whole is conventional. Many of the innovative processes which were eliminated required the use of a time-consuming and expensive solvent extraction process prior to treatment. This type of process was not considered to be technically feasible for the large volumes of material at the LEU property.

Biological metabolism and dechlorination methods were evaluated. However, both the effectiveness and the time required to achieve desirable results are unknown for these experimental in-situ methods. Therefore, these types of technologies were rejected for application at the LEU site.

The processes that remained after screening included: 1) no action, 2) capping (two different types), 3) excavation, 4) thermal destruction (four different types, both on and off-site), and 5) landfilling (on or off-site). (A description of all technologies which were screened and an explanation regarding the decision to reject or retain the specific process is contained in Section 3 of the FS Report.)

Alternatives Screening

After the technology screening process was completed, five alternatives were examined in detail. With the exception of the no action alternative, all the alternatives would involve restoration of the sewer system. This restoration would consist of: 1) removal of the 8-inch sanitary and storm sewers on the LEU property, 2) high pressure flushing and mechanical cleaning of approximately 5,200 feet of sewers in the area, 3) collection and disposal of water and sediment from the sewer flushing activities, 4) excavation of soil or sediment from approximately 500 feet of the unnamed creek beginning at the point of sewer discharge; 5) back filling of the stream channel to its original elevation with clean fill, and 6) disposal of the excavated material along with the contaminated soil on the LEU property.

The following are brief descriptions of the six alternatives which were assembled and evaluated in detail following the initial screening:

Alternative 1: No Action

This alternative provides a baseline against which the adequacy of the other actions can be measured. Under this alternative, the site would be left in its existing state and

no funds would be expended for monitoring, controlling, or cleaning up the PCB-contaminated soil. As a result, there would be no reduction in the contaminant migration from the site, and the potential contact hazards associated with the contamination would not be minimized or eliminated.

Alternative 2: Off-Site Landfill

This alternative would involve the excavation of the soil and the shipment of that contaminated material to a U.S. EPA-approved PCB landfill. This facility would provide long-term containment of the waste material. Following the removal of the contaminated soil, the site would be returned to its original elevation and grade with clean soil, which would be revegetated or resurfaced as appropriate.

Alternative 3: Off-Site Incineration

In terms of management of the contaminated soils, this alternative closely resembles the off-site landfill alternative. Under this alternative, the contaminated material would be excavated and then replaced with clean fill; but instead of being stored for an unspecified period of time at a landfill, the material would be shipped to a U.S. EPA-approved commercial incineration facility where it would be destroyed. The residual material could then be used as cover for a sanitary landfill, or as fill for a nearby construction project.

Alternative 4: On-Site Incineration

This alternative also involves the excavation of contaminated material from the site and the replacement with clean fill. However, unlike the previous alternatives, the materials that would be removed during the excavation would not be transported off the site over great distances to a disposal or destruction facility. Instead, the materials would be thermally treated on the LEU property with a mobile incinerator which would be set up at that location. Provided that analysis proves that it is uncontaminated, the residual material could be used as cover material at a sanitary landfill or as fill in roadway and construction projects.

Alternative 5: On-Site Landfill

This alternative would involve the construction of a TSCA compliant chemical waste landfill for the disposal of the PCB-contaminated soil and sediment on the LEU property. The facility would be built above-grade to maintain a separation between the wastes and the shallow ground water. This action would isolate the contaminants from direct human and environmental contact, but the volume and toxicity of the contaminated material will not be reduced. Long-term operation, maintenance, and monitoring of the facility would be required to ensure the integrity of this alternative, and

restrictions would have to be placed on the property deed to prevent damage to the containment cell.

Alternative 6: Multilayer Cap

This alternative would involve the construction of a Resource Conservation and Recovery Act (RCRA) equivalent cap over the LEU source area to provide containment of the contaminated soil and to minimize the migration of the contaminants. Like the previous alternative, long term operation, maintenance, and monitoring would be required. In addition, deed restrictions would also be necessary.

Description of Alternatives for Ground Water Remediation:

Technology Screening and Evaluation

Approximately 65 different technologies and/or processes were evaluated as potential remedial candidates for the contaminated ground water at the site. While a number of innovative and emerging technologies were examined during the process, site conditions including the presence of both PCBs and VOCs, the low permeability of the soil, and the extreme range of concentrations of the contaminants made application of most of these treatment methods impractical. In addition, two proven treatment technologies (air stripping and carbon adsorbtion) are capable of completely and permanently removing VOCs from the water at a relatively low cost. Since the effectiveness and costs of many of the innovative and emerging technologies are unproven and uncertain, these technologies were eliminated from further screening during the FS. (A complete description of the technologies screened and an explanation of the decisions regarding their retention or rejection is contained in Section 7 of the FS Report.)

The technologies and processes that remained after screening include: 1) capping, 2) vertical barriers, 3) gradient control, 4) subsurface drains, 5) physical treatment on-site, 6) treatment at a RCRA approved facility, 7) RCRA injection well, 8) recharge trench, and 9) discharge to a publicly owned waste water treatment works (POTW).

Alternatives Screening

Utilizing the remaining treatment technologies, four alternatives were assembled and subjected to detailed analysis after the technology screening process was completed. The following are brief descriptions of the four alternatives which were evaluated in depth:

Alternative 1: No Action

This alternative provides a baseline against which the adequacy of the other actions can be measured. Under this alternative, the site would be left in its existing state and no funds would be expended for controlling or cleaning up the PCB and VOC contaminated ground water. However, money would be spent for annual monitoring of the contaminant plume. As a result, there would be no reduction in the contaminant migration from the site, and the

potential contact hazards associated with the contamination would not be minimized or eliminated.

Alternative 2: Containment

This alternative would include construction of a RCRA multilayer cap, installation of a slurry wall, construction of a subsurface drain inside the slurry wall to collect ground water that might build up due to seepage through the cap and walls, and ground water monitoring. Portions of the construction for this alternative would be implemented off the LEU property, and could result in a need to relocate a few existing property owners currently located within the cap area. Long-term operation, maintenance, and monitoring would be required to ensure the integrity of this alternative, and restrictions would have to be placed on the property deeds to prevent damage to the cap.

Alternative 3: Collection and On-Site Treatment

This alternative would consist of subsurface drains including a sump and pump for ground water collection and treatment. Approximately 2,000 gallons per day would be captured and would need treatment. The actual treatment would be detailed during the design process, but would include phase separation, filtration, and air stripping. The system would be completely automated and housed in a pre-fabricated building on the LEU property. The treated water would be discharged to the local waste water treatment plant via sanitary sewers. Routine operation, maintenance, and monitoring would be necessary for approximately 12 years.

Alternative 4: Collection and Off-Site Treatment

This alternative would essentially be identical to the previous one, with the one exception being that the contaminated ground water collected would be processed at an off-site chemical waste water treatment facility. Long-term operation and maintenance of the collection system and ground water monitoring would be required for approximately 12 years.

Description of Alternatives for Remediation of Structures:

Technology Screening and Evaluation

Several methods for decontaminating the PCB-contaminated structures at the LEU site were originally evaluated during the 1986 PFS. The methods which were determined to be the most suitable for decontamination (based on an evaluation of effectiveness, implementability, and cost) are as follows: 1) dusting, vacuuming, and wiping; 2) dismantling, removal, and replacement; 3) high pressure water or water-detergent washing; 4) solvent washing; 5) steam cleaning; and 6) application of strippable or fixative coatings.

Methods used to decontaminate structures and equipment are generally proprietary techniques and are not well documented. Therefore, testing and

perhaps a pilot-scale study of the technology would be required before any decontamination procedure could be implemented on a full-scale.

A limitation of all technologies is that surface and subsurface sampling techniques are not standardized. Therefore, initial and final contamination levels may not accurately reflect the effectiveness (or lack thereof) of the decontamination methods used. Consequently, the residual long-term risks would be very questionable. Such uncertainty about risks remaining would reduce the salability of the property.

A total of 148,000 square feet of surface area was estimated for exterior cleaning of all buildings, while 233,000 square feet of surface area (including 18,000 square feet of interior offices) was estimated for the interiors of the structures. Several combinations of decontamination methods were considered. These combinations all utilized similar methods. However, the potential degree of decontamination achieved varied, depending upon the proportion of the surface area receiving a particular treatment.

Once the technologies were screened, and some of the alternatives were assembled, it was very apparent that a detailed analysis of alternatives would not be necessary. This decision was evident immediately based on the following:

1) The no action alternative would be unacceptable because it would not address the environmental or public health concerns,
2) Any form or level of decontamination would not be acceptable due to the high cost and the continuing long-term liability concerns that would exist due to the inability to verify the decontamination and the resultant level of protection associated with the cleaning;
3) The RI investigation determined that as much as 3-feet of soil beneath the structures could be PCB-contaminated and would be acting as a continuing source of ground water contamination; and,
4) The demolition and disposal of the structures was less costly than any decontamination alternative, was more protective in both the short and long-term, and would eliminate a source of ground water contamination.

Based on these factors, a decision was made to forego, the detailed analysis. The only viable alternative that offered the desired degree of protectiveness was therefore, demolition and disposal of all structures.

IX. SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

Each of the alternatives were evaluated according to current U.S. EPA guidance and Section 121 of SARA which states that the selected remedy is to be protective of human health and the environment, cost-effective, and use permanent solutions and alternative treatment technologies or resource

recovery technologies to the maximum extent practicable. Also, all alternatives have been evaluated based on the following criteria specified in "Additional Interim Guidance on Superfund Selection of Remedy," dated July 24, 1987:

1. Overall protection of human health and the environment addresses whether or not a remedy provides adequate protection, and describes how risks are eliminated, reduced or controlled through treatment, engineering controls, or institutional controls.

2. Compliance with ARARs addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of (ARARs) of other environmental statutes and/or provide grounds for invoking a waiver.

3. Long-term effectiveness and permanance refers to the ability of a remedy to maintain reliable protection of human health and the environment over time once cleanup goals have been met.

4. Reduction of toxicity, mobility, or volume is the anticipated performance of the treatment technologies a remedy may employ.

5. Short-term effectiveness involves the period of time needed to achieve protection and any adverse impact on human health and the environment that may be posed during the construction and implementation period until cleanup goals are achieved.

6. Implementability is the technical and administrative feasibility of a remedy, including the availability of goods and services needed to implement the chosen solution.

7. Cost includes capital and operation and maintenance costs.

8. Support agency acceptance indicates whether, based on its review, of the RI/FS and Proposed Plan, the support agency (IEPA) concurs, opposes, or has no comment on the preferred alternative.

9. Community acceptance indicates the public support of a given remedy.

The analysis that follows was performed using the above factors as they apply to each of the developed alternatives.

SOILS AND SEDIMENTS

Overall Protection of Human Health and the Environment

The No Action alternative does not afford adequate protection of human health and the environment since unacceptable risks will be allowed to remain. It therefore is not eligible for further consideration.

All the remaining alternatives afford adequate protection, although they do through different means of remediation. Alternative 3 (Off-site Incineration) and Alternative 4 (On-Site Incineration) eliminate the risk by destroying the contaminants. Alternative 2 (Off-site Landfill), Alternative 5 (On-site Landfill), and Alternative 6 (Multi-layer Cap) also afford protection through engineering controls.

Compliance with Applicable or Relevant and Appropriate Requirements

All the alternatives examined in detail would attain all applicable or relevant and appropriate requirements of Federal and State Laws. The TSCA requirements entered most prominently into the analysis. TSCA regulations require that PCB contaminated soil in concentrations greater than 50 ppm must be taken to, or disposed of, at a TSCA regulated facility. If PCB wastes are incinerated, a destruction removal efficiency of at least 99.9999 percent must be met. Further information of compliance with applicable or relevant and appropriate requirements is included in Section XI of this report.

Long-Term Effectiveness and Permanence

The most advantageous alternatives for long-term effectiveness and permanence are 3 (Off-site Incineration) and 4 (On-site Incineration). These two alternatives offer the highest degree of effectiveness and permanence by permanently destroying the contaminants in the soil and sediments. The incineration option would provide removal by destruction of contaminants.

Alternative 2 (Off-site Landfill) and 5 (On-site Landfill), while offering a degree of effectiveness by engineering controls, do not destroy the contaminants as would Alternatives 3 and 4. There is also difficulty in assuring the long-term integrity of hazardous waste landfills.

Alternative 6 (Multi-layer Cap) offers the least long-term effectiveness of all the alternatives considered. Since there would be no underlying liner and collection system as in 2 and 5, long-term monitoring and maintenance would be required to assure the permanence of this remedy.

Reduction of Toxicity, Mobility or Volume

Alternatives 3 (Off-site Incineration) and 4 (On-site Incineration) offer the advantage of permanently destroying the contaminants in the soil, therefore satisfying this criterion completely.

Alternatives 2 (Off-site Landfill), 5 (On-site Landfill), and 6 (Multi-layer Cap) offer no reduction of toxicity, or volume. However, the mobility of the contaminants is reduced.

Short-Term Effectiveness

Alternative 6 (Multi-layer Cap) would be the most effective in the short-term. Installation could be completed within a year and would quickly

minimize the pathways of exposure and migration of contaminants. The least adverse environmental impacts would occur during the implementation of this alternative.

All the remaining alternatives are roughly comparable in terms of effectiveness. Alternatives 3 (On-site Incineration) and 5 (On-site Landfill) are estimated at 1-2 years for construction and on-site disposal or incineration of contaminated soil and sediments. There are adverse effects to the environment from volatilization caused by excavation and potential material handling incidents. Alternative 2 (Off-site Landfill) is effective in the short-term in that it can achieve the respective response objective by transporting material off-site within 1 to 2 years, resulting in relatively rapid reduction of site risks. The risks associated with this alternative are potential adverse impacts due to excavation, material handling, and off-site transportation. Alternative 4 (Off-site Incineration) has similar advantages as Alternative 2, but the additional disadvantage of long-term storage on-site until incineration can be completed. This storage can potentially be required for as long as 15 years.

Implementability

Alternatives 5 (On-site Landfill) and 6 (Multi-layer Cap) are easily implemented and constructed using standard materials, equipment and methods.

Alternative 4 (On-site Incineration) could not be fully implemented until a trial burn was conducted and certification of operation was granted. It is possible that certification may delay the actual operational date of the incinerator.

Alternative 2 (Off-site Landfill) will be more difficult to implement due to the shortage of space at approved hazardous waste facilities.

Alternative 3 (Off-site Incineration) would be very difficult to implement. The materials must be packaged in small drums for storage and subsequent transportation. The facilities which may be used have commitments to clients which would result in only a small fraction of material being incinerated monthly.

Cost

The least costly alternatives are 5 (On-site Landfill) with a capital cost of $3,486,006 and an annual cost of $12,000 and Alternative 6 (Multi-layer Cap) with a capital cost of $3,544,700 and an annual cost of $12,000.

Alternative 2 (Off-site Landfill) and 4 (On-site Incineration) are an order of magnitude more expensive than the previous alternatives. Alternative 2 has a capital cost of $25,427,662 and no annual costs. Alternative 4 has a capital cost or $28,625,998 and no annual costs.

The most expensive is Alternative 3 (Off-site Iincineration) with a capital cost of $151,350,144 and no annual cost.

Support Agency Acceptance

All the alternatives will meet the criteria set forth by the State of Illinois for protection of the public health. However, the State has expressed its preference for on-site incineration and has stated that any landfill alternative would be their least preferred method for a selected remedy.

Community Acceptance

The citizens as well as local and state officials have expressed their support for the selected alternatives. The citizens have expressed their desire that the on-site landfill or multi-layer cap not be considered. The citizens prefer that the site be restored to usable commercial property capable of supplying employment to the local residents. They also expressed interest in modifying the existing cleanup contract to allow the selected alternative to be completed in a more timely manner.

GROUNDWATER

Overall Protection of Human Health and the Environment

Alternative 1 (No-Action) would not reduce or eliminate human exposure and would be unprotective of associated risks by ingestion. Therefore, this alternative was eliminated from further consideration.

All remaining alternatives (Alternative 2, Containment; Alternative 3, Collection and On-site Treatment; Alternative 4, Collection and Off-site Treatment) are designed to eliminate human exposure. Therefore, all remaining alternatives would be protective of human health and the environment even though the degree of protection afforded is not necessarily equal for each alternative.

Compliance with Applicable or Relevant and Appropriate Requirements

Alternative 2 (Containment), 3 (Collection and On-site Treatment) and 4 (Collection and Off-site Treatment) would all be in full compliance with all applicable or relevant and appropriate requirements. Section XI of this document further describes the attainment of these requirements.

Long-term Effectiveness and Permanence

Alternative 3 (Collection and On-site Treatment) and 4 (Collection and Off-site Treatment) would meet this criterion by effectively eliminating the related risk by removing contaminated groundwater from the aquifer of concern. Both would require operation, maintenance and monitoring for approximately 12 years.

Reduction of Toxicity, Mobility or Volume

Alternatives 3 (Collection and On-site Treatment) and 4 (Collection and Off-site Treatment) would reduce the toxicity, mobility and volume of the contaminants through capture and treatment of contaminated groundwater, thereby removing the source of the risk.

Alternative 2 (Containment) would not affect the toxicity or volume of contaminants present at the site. However, the mobility would be reduced through engineering controls, such as slurry wall barriers and capping, designed to reduce ground water migration.

Short-term Effectiveness

All the alternatives have approximately equal short-term effectiveness. Alternative 2 (Containment) is effective in the short-term in that it can achieve its response objective in 1-2 years. There would be adverse affects from the volatilization of contaminants during construction. Alternatives 3 (Collection and On-site Treatment) and 4 (Collection and Off-site Treatment) also would take 1-2 years to construct and implement. While no significant adverse effects exist for Alternative 3, adverse effects during material handling and transport may be present with Alternative 4.

Implementability

In terms of implementability, Alternative 3 (Collection and On-site Treatment) and 4 (Collection and Off-site Treatment) could be easily constructed using standard material, equipment and methods. Any problems encountered should be insignificant and easily minimized by careful planning during the design and implementation. The only implementation difficulty associated the Alternative 4 would be the inability to locate an off-site treatment facility in compliance with the U.S. EPA's off-site policy.

Implementation of Alternative 2 (Containment) may be very difficult due to the need for access agreements from, or relocation of, current property owners, as well as property use restrictions.

Cost

The least costly Alternative is 3 (Collection and On-site Treatment) with a capital cost of $2,152,106 and annual costs of $64,000. The next most cost-effective Alternative is 4 (Collection and Off-site Treatment) with a capital cost of $2,139,244 and annual costs of $212,000. The most expensive Alternative is 2 (Containment) with a capital cost of $6,802,878 and annual costs of $54,550.

Support Agency Acceptance

While the State has supported all the alternatives selected for evaluation, it has stated a preference for collection and on-site treatment of contaminated ground water.

Support Agency Acceptance

While the State has supported all the alternatives selected for evaluation, it has stated a preference for collection and on-site treatment of contaminated ground water.

Community Acceptance

The citizens as well at State and local officials have expressed their support for all the selected Alternative. The citizens' primary concerns were that the site be restored to usable commercial property capable of supporting employment to the local residents and that the existing cleanup contract be modified to permit completion in a more timely manner.

X. SELECTED REMEDY

The Agency selected the alternative which was determined to most effectively remedy the contamination problem remaining at this site, consists of excavation and on-site incineration of affected soil and sediment, flushing and cleaning of affected sewer lines, demolition and disposal of structures on the LEU property, and collection and on-site treatment of affected ground water. The remedy will result in restoration of the contaminated aquifer to acceptable and safe levels of contaminants. Soils will be excavated consistent with the cleanup levels selected in the 1986 ROD. Specifically the levels are 5 ppm in surface soils and 10 ppm at depths greater than one foot when clean fill material is used to return the area to its original grade. (A discussion of the soil clean up levels is contained in the 1986 ROD.) The cleanup level for the building is the removal of all building material.

These Alternatives are consistent with and complement the prior alternatives selected in the August 29, 1986 ROD. Jointly, these alternatives comprise a complete cleanup of this site.

Section 104(c)(3) of CERCLA as amended sets forth State financial responsibilities in remedial actions. The State of Illinois' financial responsibilities in the proposed remedial action would include payment, or assurance thereof, of 10 percent of the costs of the remedial action and 100 percent of the costs of any operation and maintenance which is not considered to be the responsibility of the U.S. EPA according to Section 104(c)(6) of CERCLA as amended.

XI. STATUTORY DETERMINATIONS

Protection of Human Health and the Environment

The selected remedy provides adequate protection of human health and the environment in eliminating the direct contact threat from the contaminated soil and sediment through incineration which will permanently destroy the PCBs, and demolition and disposal of the contaminated buildings. The threat to human health and the environment posed by the contaminated ground water will be eliminated through collection and treatment of the ground water,

restoring the ground water to drinkable quality. Implementation of the selected remedy will not pose any unacceptable short-term risks.

Attainment of Applicable or Relevant and Appropriate Requirements

This remedy will attain all applicable or relevant and appropriate requirements of other Federal and State environmental laws. They are:

Toxic Substances Control Act. PCB disposal regulations under 40 CFR 760.60 require that PCB contaminated soil in concentrations greater than 50 ppm be taken to a TSCA regulated facility. Incineration of PCB waste must be able to meet a destruction removal efficiency of at least 99.999 percent. These requirement are applicable and will be met. In addition, residual material from the incinerator would be required to contain less than 2 ppm PCBs.

Resource Conservation and Recovery Act. Ground water will be monitored for three years following attainment of cleanup levels consistent with corrective action monitoring requirements under 40 CFR 264.100.

Safe Drinking Water Act. Contaminated ground water will be collected to achieve Maximum Contaminant Levels for VOCs; PCB's will be removed to the 1 ppb level.

Clean Water Act. Ground water that is collected will be discharged to the local waste water treatment plant following treatment and will meet pretreatment standards established pursuant to 40 CFR 403.5.

Clean Air Act. Emission control requirements may be applicable to emissions from the incinerator depending on the magnitude of the emissions. Parameters of concern are sulphuric oxides (SO_X), nitric oxides (NO_X) gases, and particulates. Costs for air pollution control equipment have been included in the total cost for the selected remedy. Asbestos in the LEU buildings will be disposed consistent with the NESHAPS for asbestos (40CFR 61.147).

In addition to the ARARs noted above, any off-site disposal of the debris resulting from demolition of the LEU structures will be carried out in accordance with "Revised Procedures for Implementing Off-site Response Actions," November 13, 1987.

Cost-Effectiveness

The selected remedy provides the greatest overall effectiveness of all of the alternatives evaluated; affords the highest degrees of long-term effectiveness and permanence; reduces the toxicity, mobility or volume; and provides reasonable effectiveness in the short-term. Present worth costs of the selected remedy are estimated at $28,625,998 for the excavation and on-site incineration of the soil and sediment, $2,588,182 for ground water collection and on-site treatment, and $3,281,000 for demolition and disposal of the structures. These costs are and within an order of magnitude of what it would cost to simply dispose of, or cap, the material on-site. In this context,

U.S. EPA and the State of Illinois believe that the costs of on-site incineration are proportionate to the effectiveness achieved and represent a reasonable value for the money. (A summary of the costs for the various alternatives is contained in Attachment II.)

It is worth noting that while cost estimates were prepared using standard guidance, it is likely that actual costs for on-site incineration may be significantly lower than estimates, based on experience with the previous remedial action undertaken at this site under the August 1986 ROD. The cost of that operable unit, which involved removal and on-site thermal destruction of approximately 24,000 cy of PCB-contaminated residential soils, was estimated at $27 million; but the construction contract was awarded to the low bidder for $12 million. Figuring in IEPA management costs and resident inspection service, that part of the project should cost approximately $15 million, representing a 45 percent cost savings. This low bid is due to the current competitive atmosphere in the thermal destruction business in which many companies are willing to cut profits to a minimum in order to gain experience and to prove that their equipment can perform. In addition, the level of competition has been further increased at this site by the use of performance specifications and the two-step procurement procedures, which substantially increases the size of the pool of potential bidders for the work. It is therefore possible that when the project is actually bid, on-site incineration will prove even more cost-effective than currently estimated.

The selected ground water alternative, collection and on-site treatment, is the least costly of all ground water alternatives that would afford adequate protection. In addition, this alternative offers significantly greater overall effectiveness than the more costly containment option since it will ultimately restore the ground water for use as a source of drinking water.

Demolition and disposal of the structures was less costly than any of the decontamination options evaluated, which ranged from $4.0 - $7.5 million. In addition, a 1986 market evaluation of the structures by the Illinois Department of Commerce and Community Affairs estimated that the structures were only worth approximately $1.1 million, and that building replacement costs were approximately $1.5 million.

U.S. EPA and IEPA believe that each component of this remedial action is cost-effective and that the remedy as a whole represents a reasonable value for the money.

Utilization of permanent Solutions and Alternative Treatment Technologies and Resource Recovery Technologies to the Maximum Extent Practicable

U.S. EPA and State of Illinois believe that after a careful evaluation of the alternatives, and after balancing the outcomes from the various evaluations, the selected remedy is the most appropriate solution at the LaSalle site. This remedy not only meets the goals of both agencies in terms of a final remedial action, but it also provides permanent protection of human health and the environment from the risks currently posed by the contaminated soil, sediment, and ground water. Protection is achieved by utilizing an alternative

treatment technology (modile, thermal destruction) that destroys the contaminants or reduces them to nonhazardous levels. The long-term effectiveness of this remedy is achieved within a reasonable period of time without posing any short-term risks that cannot be managed properly. This remedy can be readily implemented at reasonable cost and is accepted by the State and community. Finally, this remedy represents the practicable extent to which permanent solutions and treatment can be utilized at this site.

Preference for Treatment as a Principal Element

The selected remedy addresses the principal threats posed by the site through the use of treatment technologies, thus satisfying the statutory preference for remedies that employ treatment as a principal element.

Attachment I

CHRONOLOGY OF REGULATORY ACTIONS
LASALLE ELECTRICAL UTILITIES

* September 1975	LEU cited for inadequate PCB storage facilities by U.S. EPA.
* October 1979	Violation of PCB management practices documented by U.S. EPA and OSHA.
* July 1980	U.S. EPA issues Toxic Substances Control Act (TSCA) complaint.
* December 1980	IEPA soil sampling revealed extensive PCB contamination on the LEU property.
* March and May 1981	IEPA soil sampling revealed PCB contamination on property other than LEU's.
* May 1981	IEPA, under authority of Section 34 of the Illinois Environmental Protection Act, sealed all but the leased area of the LEU property.
* June to September 1981	IEPA conducted additional soil sampling in the area.
* May 1982	IEPA filed a State of Illinois complaint.
* August 1982	IEPA amended the State of Illinois complaint and also filed a Federal complaint under TSCA.
* August 1982	U.S. EPA field investigation team installed four monitoring wells at the site.
* December 1982	Based on the information gathered, the site is included on the first publication of the NPL. HRS score equaled 42.06.
* July 1983	A U.S. EPA contractor fenced part of the LEU property as an immediate removal measure at the site.

* July and October 1983	The U.S. EPA conducted additional sampling south of the LEU property. Results indicated heavy contamination on the property immediately to the south.
* June 1984	The U.S. EPA conducted an immediate removal action at the site and capped the section of the property south of the LEU site which was found to be heavily contaminated. This cap diverted drainage to an on-site pond that was also constructed.
* June 1984 to July 1985	IEPA conducted additional soil and ground water sampling in the area. Ground water contamination, including volatile organic contaminants (VOCs) and PCBs, was identified.
* April 1985	The U.S. EPA conducted an immediate removal action at the site. PCB waste material that had been stored on the site was staged, sampled, and packaged for eventual disposal.
* August 1985	Draft FS by IEPA contractor addressed contamination in area soils.
* December 1985	The IEPA conducted an immediate removal at the site. An IEPA contractor removed the previously staged material and transported it to a nearby incineration facility.
* January 1986	Draft RI report prepared by IEPA.
* June to August 1986	Phased Feasibility Study (PFS) regarding soil contamination not on the LEU property is prepared by IEPA contractor.
* August 1986	U.S. EPA Record of Decision regarding residential soil contamination is signed.

* January to July 1987	IEPA contractor prepared design plans and specifications for the cleanup of contaminated residential soils.
* January to December 1987	IEPA contractor conducted investigation of groundwater contamination at the site.
* January 1988	IEPA signs contract and begins preliminary work related to the cleanup of residential soils.

Attachment II

SUMMARY OF COSTS

Alternative	Capital Cost [1]	Annual Cost	Present Valu
Soil and Sediment			
No Action	-0-	-0-	-0-
Off-site Landfill	25,427,662	-0-	25,427,662
Off-site Incineration	151,350,144	-0-	151,350,144
On-site Incineration	28,625,998	-0-	28,625,998
On-site Landfill	3,486,006	12,000	3,599,132
RCRA-type Cap	3,544,700	12,000	3,657,823
Ground Water			
No Action	-0-	56,000	527,907
Containment	6,802,878	54,550	7,317,116
Collection/On-site Treatment[3]	2,152,106	64,000	2,588,182
Collection/Off-site Treatment[3]	2,139,244	212,000	3,583,747
Structures			
No Action	-0-	-0-	-0-
Decontamination Level 1	4,037,000	-0-	4,037,000
Decontamination Level 4	7,511,000	-0-	7,511,000
Demolition/Off-site Disposal	3,281,000	-0-	3,281,000
Recommended Alternatives[4]			
On-site Incineration	28,625,998	-0-	28,625,998
Collection/On-site Treatment	2,152,106	64,000	2,588,182
Demolition/Off-site Disposal	3,281,000	-0-	3,281,000
Totals	34,059,104	64,000	34,495,180

1 Capital costs include a 35 percent multiplier to allow for both bid and construction contingencies.

2 Present value is computed using a 10 percent discount rate and a 30 year time period.

3 Present value for this alternative was computed based on a 12 year time period.

4 Implementation of the recommended alternatives will also involve design and construction oversight expeditures which have been projected at $500,000 and $2.6 million respectively.

ATTACHMENT III

RESPONSIVENESS SUMMARY

In the Matter of: LaSalle Electrical Utilities Inc.
Superfund PCB Abatement Project
Remedial Investigation/Feasability Study
(IEPA to 8781)

RESPONSIVENESS SUMMARY

The Illinois Environmental Protection Agency (IEPA) conducted community relations for the off-site project segment continuing through the Remedial Investigation and Feasibility Study for the on-site Electrical Utilities Company (EUC) project segment.

During the phased feasibility study for the EUC site property, a 32 day public comment period (January 18 - February 19) was established to receive public comment about remedies for management of contamination found on the EUC plant property. A public hearing was held on February 17, 1988 to discuss those remedies. This responsiveness summary documents concerns expressed by citizens during the comment period and IEPA's responses to those concerns.

INTRODUCTION

Polychlorinated biphenyls (PCBs), used in the manufacture of electrical capacitors, and volatile organic compounds, used as degreasing solvents, are present in the soil, groundwater, buildings and sewers at the EUC property. PCB contamination has migrated through the sewers from the EUC property to the residential area sewers east of the plant and to an unnamed creek tributary to the Little Vermilion River.

In the feasibility study, three alternatives have been proposed for management of contaminated buildings: no-action, building cleaning and decontamination, and building demolition and disposal. Six alternatives have been proposed for management of contaminated soils: no-action, off-site landfill, on-site landfill, multilayer cap, off-site incineration and on-site incineration.

Four alternatives have been proposed for management of contaminated groundwater: no-action, site containment, collection and off-site treatment and collection and on-site treatment.

Community support has been virtually unanimous for the alternative proposals preferred by IEPA. Initially there were some questions raised by local health officials and residents regarding the emissions that will be released during operation of the mobile incinerator. Those concerns have been addressed through extensive public awareness and informational campaigns. Currently IEPA's incineratic plans are virtually unopposed.

COMMUNITY INVOLVEMENT

Community relations for this project commenced with a joint presentation by IEPA and U.S.EPA officials at a city council meeting in January, 1984. Through personal interviews, "living room meetings," public hearings and public meetings, the following issues have been identified as concerns of the citizens during the remedial investigation for the on-site and off-site project segments.

Effect on business--Several small businesses are located in the immediate vicinity of the EUC site. Business owners are concerned about how present and potential customers are reacting to the news that PCB contamination exists in the area.

One businessman has been refused liability insurance. Insurance companies are citing PCB contamination and underground storage tanks as the reason.

Property values--According to residents, residential property values have diminished in one area near the EUC site. Residents feel that once cleanup at the EUC site is completed, property values will increase. According to residents, removal of approximately 260 fifty-five gallon drums containing PCBs

and drainage of a tank containing trichloroethylene in February, 1986, did not affect property values.

Health effects--PCB contamination in residential yards raised questions about potential health effects to both present and future generations. Officials from the Illinois Department of Public Health and the IEPA went door-to-door when PCB levels were identified to discuss the impact of the PCBs in residental yards.

Traffic disruptions during construction--City administrators, Department of Transportation officials and State Police officers voiced concerns over traffic disruptions during excavation and removal of soils.

Safety for residents, Lincoln Jr High School students and users of Hegler Park--Safety, both during and after excavation, is a major concern of all parties involved in the project. Elaborate safety measures have been proposed by the contractor and site safety has been stressed.

Restoration of properties--One common concern for most citizens and officials is that all properties that are excavated, including the EUC plant site, be returned to origional condition or better than they were prior to excavation.

A public hearing was held on February 17, 1988, at the Howard Johnson's Motor Lodge in LaSalle, Illinois beginning at 7:00 p.m. Approximately 20 out of 60 in attendance at the hearing asked questions or made comments. Prior to the hearing, fact sheets were distributed, news interviews were given, news stories were run in the local papers, and a meeting was held with the city council and city administrators to discuss the project and to answer any ques-

SUMMARY OF COMMENTS AND IEPA RESPONSE

ISSUE: **Superfund Program**

QUESTION: For many years, scrap capacitors were dumped in the Peru, Ill. landfill and PCB contaminated oils were spread on alleys in the city. The alleys have since been paved over and the capacitors buried. Will this project address those areas of contamination?

RESPONSE: No, the scope of work for this Superfund PCB abatement project addresses the plant site property and surrounding residential and commercial areas to the east, north, and south to Seventh Street. If it is discovered that indeed there is PCB contamination at the city dump or in alleys within the city, that will be addressed as a separate action or project.

QUESTION: Are there any funds set aside in this project to compensate people who worked at EUC and have suffered adverse health effects from PCB exposure during their employment?

RESPONSE: Though there are no funds set aside to compensate workers who have suffered adverse health effects through their exposure to PCBs or other toxic substances at EUC, a health assessment study of affected residents and EUC workers is scheduled to be conducted by the Illinois Department of Health. If you wish to be included in this study, or have information that would be related to health and employment at EUC, give your name and phone number and IEPA will see that Public Health gets the information. In addition, if you have information or names of past workers at EUC, that information would be of great value.

QUESTION: Where may the Remedial Investigation and Feasibility Study reports and cost estimates be viewed by the public?

RESPONSE: Copies of the project-related documents you discussed are available for viewing by the public at the City Clerk's office in LaSalle, Ill. and at our IEPA headquarters in Springfield, Ill. A summary of alternatives and costs for the on-site project are in the fact sheet distributed to you tonight.

QUESTION: In the course of this hearing, will there be a discussion of off-site disposal or excavation?

RESPONSE: The discussions and testimony given at this hearing will be limited to issues concerning on-site excavation and disposal. In July of 1986, a hearing such as this was held to address the off-site project.* The off-site project is currently underway and is scheduled for completion in 1989. If, following the meeting, you wish to ask any questions regarding the off-site project, you may do so.

QUESTION: Who owns the incinerator that Westinghouse will be using for the off-site project, and can it be leased by the contractor to do the on-site project?

REPSONSE: Westinghouse, and its subsidiary Haztech Inc., own and operate the incinerator they will be using for the off-site project. It would be doubtful that they would lease the incinerator to another contractor, though the decision would be Westinghouse's to make.

QUESTION: Is there a schedule set for start of excavation and disposal for the on-site project?

RESPONSE: No, the project schedule will be influenced by a number of factors, some of which are the proposals recommended at this hearing. It is the intention of the U.S.EPA and IEPA to proceed with the on-site project and complete both projects with a minimum of delay.

QUESTION: Will the recent cutbacks in the federal budget affect the completion of the on-site project or the off-site project?

RESPONSE: Funding for the off-site project has been allocated by the U.S.EPA and IEPA already, and monies have been expended from that allotment for project costs incurred to date. Funding for the on-site project will not be obligated until the funding request is made by the IEPA. Any funds allocated for the off-site project and left unspent at the completion of that project may possibly be applied to the on-site project, with approval by the U.S.EPA.

QUESTION: Why was the LaSalle PCB abatement project divided into two project segments, the on-site and off-site segments?

RESPONSE: The project was divided to allow the excavation and removal of contaminants for the off-site project without waiting for the remedial investigation to be completed for the whole project. In the spring of 1986, the Remedial Investigation and Feasibility Study was completed and the remedial design was undertaken for the off-site project. The Remedial Investigation and Feasibility Study for the on-site project was completed in January, 1988 and is now about to enter the remedial design phase. Thus, the project for removal of off-site contamination, the contamination more closely contacted by residents of the area, was able to be undertaken two years sooner.

QUESTION: Who will own the property once the project is completed?

RESPONSE: The Bankruptcy Court has not yet made that decision. The court has control of the property through a trust at the Lake Shore National Bank of Chicago.

QUESTION: I want to be on record to propose that the EUC building be cleaned and decontaminated or replaced. Will my comments be given any weight in the final decision of building structure disposition?

RESPONSE: Yes, your comments will be conveyed to the U.S.EPA prior to the decision in two forms; a responsiveness summary of questions and comments made during the hearing and comment period, and the permanent hearing record transcript.

QUESTION: Once the building is demolished and the site cleaned up, will there be any restrictions on use or access to the site property from a public health or safety standpoint?

RESPONSE: No.

QUESTION: If other areas of LaSalle were found to have PCB contamination, what would the IEPA do?

RESPONSE: Just as was done with the EUC PCB abatement project, an initial discovery or report of contamination triggers a series of responses by the IEPA. Each preliminary investigation seeks to learn the type and extent of any source of contamination until ultimately a remedy can be implemented if it is found to be necessary. This whole process can begin with a phone call report of contamination of the environment and end with a Federal Superfund Cleanup Project.

QUESTION: Can local labor forces be used in some portions or aspects of the project by Westinghouse Inc. if subcontracting work is planned?

RESPONSE: Yes. There are no restrictions forbidding the use of local workers providing they are adequately trained for the tasks they are to perform. This issue is entirely at the discretion of the prime contractor, Westinghouse Inc.

QUESTION: When will the Record of Decision be made?

RESPONSE: The Record of Decision is slated to be completed in March, 1988.

ISSUE: **Contamination (General)**

QUESTION: What level of protection will be required for workers performing tasks within contaminated areas?

RESPONSE: Hardhats, chemical resistant steel toed boots, chemical resistant overalls and gloves, respirators or dust masks, and face shields or eye protection, must be worn for the safety of workers within the contaminated areas.

QUESTION: Is the area within the fenced boundary of the plant site the only contaminated area?

RESPONSE: No. In addition to the plant site property, excavation sites along St. Vincents and Joliet Street and the property adjacent to the plant site to the east, are considered contaminated zones or areas.

QUESTION: Do you believe that the contamination ends at this fenced area?

RESPONSE: No, the off-site project along St. Vincents Avenue and Joliet Street to the north and south, and the residential area to the east of the EUC property, is scheduled to begin in March, 1988. This

project segment addresses the removal of contamination that has migrated off the plant site property fenced area.

QUESTION: What type of PCBs are found at the plant site?

RESPONSE: Arochlor 1248 and Arochlor 1254 were found along with many volatile organic solvents on the plant site property.

QUESTION: There is an oil company to the south of the plant site property. Could any of the detected solvent contamination found on the plant site be coming from there?

RESPONSE: No. Through the investigation phase of the project, it has been determined that the source of the contamination is the EUC plant site. It is possible that other types of contamination, such as gasoline or motor oils, could come from the oil company property if there were a release of those materials.

QUESTION: Why is the health risk caused by exposure to the PCBs and volatile organic compounds at LaSalle classified as a potential or long-term risk and not an immediate or acute risk?

RESPONSE: Laboratory and population studies have indicated that effects on workers or residents of exposure to PCBs and volatile organic compounds in the concentrations and proximity to human contact, such as found in LaSalle, would pose a more long-term and cumulative health effect than an immediate or acutely toxic effect.

QUESTION: If you clean up the off-site properties prior to cleaning the source at the EUC property, will there be a risk of PCB recontamination of the off-site properties; and will they be tested?

RESPONSE: IEPA has planned for there to be very little time delay between excavation of the off-site and on-site project segments. This will minimize the risk of that possibility. The plant site property is also the focus of elaborate PCB containment requirements and procedures to minimize the migration of any contaminants from the site during the project.

QUESTION: What will be done with PCB contaminated materials that cannot be incinerated or decontaminated?

RESPONSE: Those materials will be landfilled in a U.S.EPA approved PCB landfill. Any materials that are incinerated will leave a residue or ash. The waste ash will be tested to ensure it is non-hazardous, and it will be used for fill on-site or at a local landfill for cover purposes.

QUESTION: Up to now, most discussions of contamination off-site were limited to PCBs. Why now, are we talking about PCBs and other contaminants in the groundwater?

RESPONSE: During the remedial investigation study for the off-site areas, no PCB contamination was found in the groundwater. When the remedial investigation study was complete for the on-site EUC property, both PCB's and volatile organic solvents were found in the groundwater. Though PCB's in the groundwater are confined to the on-site areas, there is some movement of solvents in the groundwater toward the adjacent off-site areas to the south and east.

ISSUE: **Contamination (Groundwater)**

QUESTION: What is the proposed plan to deal with groundwater?

RESPONSE: The plan is to install a trench drainage system to collect the groundwater and construct an on-site treatment system to treat the water. This process is expected to continue for approximately 10 years.

QUESTION: Is my drinking water well, located 300 feet north of the plant site boundary, contaminated with PCBs because of storm water run off that runs onto my property from the EUC plant site?

RESPONSE: Your well should not be contaminated, since groundwater monitoring wells between your property and the EUC plant site show no signs of contamination. The groundwater at the plant site flows to the south and east not to the north. The storm water runoff that enters your property is channelled to the east via a culvert and flows to the Little Vermilion River away from your property. Though there is surface PCB soil contamination at your property that will be removed as part of the off-site excavation project, your well should not be contaminated. If you wish to have your well tested, we can arrange for it to be done as part of the sampling to be done during the off-site project.

QUESTION: Will the wells located to the south and east of the plant site property continue to be monitored after the project is completed?

RESPONSE: Yes, they will be monitored in conjunction with the groundwater treatment effort. The U.S.EPA also requires monitoring of the site, and the monitoring requirement could be up to 30 years.

QUESTION: Will the discharge of water from the proposed groundwater treatment process to the sanitary sewer have any impact on the treatment plant of LaSalle, Ill.?

RESPONSE: Yes, though any discharge to the treatment plant must meet the permit conditions for the treatment process. The only impact on the process would be a strictly hydraulic flow increase of water to the plant. If the waste water can meet clean water standards, it may be discharged directly to the ground at the site or to a storm sewer.

ISSUE: **Contamination (Soils)**

QUESTION: What are the relative depths of the topsoil, glacial till, and bedrock layers on the EUC plant site property?

RESPONSE: The topsoil layer averages two feet in thickness and the till formations reach bedrock at an average depth of thirty feet.

QUESTION: What is the greatest depth at which PCBs have been found on the plant site property?

RESPONSE: PCBs have been found at bedrock level in one confined area at the site at approximately thirty feet in depth.

QUESTION: What are the boundary limits for excavation of soils for the on-site project portion?

RESPONSE: Currently the EUC plant site is fenced for safety and security reasons. The area within that fenced area is, generally, the boundary for excavation for the on-site project. There is one exception. A storm sewer and an outfall to an unnamed creek are also to be cleaned or excavated.

QUESTION: At what part of the plant site was the highest concentration of PCBs found?

RESPONSE: An area behind the main plant building to the west near a quonset hut building, has the highest concentrations of PCB contamination in the soil.

QUESTION: At what depth are these contaminants found, and how deep will the excavation need to be to achieve adequate removal of the contamination?

RESPONSE: According to the preliminary study data, the excavation of the EUC property area would achieve adequate removal at a depth of five feet. Once the excavation is made to that depth, additional soil sampling will be done to demonstrate that no further excavation will be necessary and that the contaminants have been effectively removed.

QUESTION: How does the PCB contamination affect the corn or soybean crops grown to the north of the plant site property.

RESPONSE: PCBs are not readily taken up into plants, and there has been no documented proof that the crops to the north of the plant have been affected. It is our hope to do the excavation and decontamination of this area prior to the 1988 planting season.

QUESTION: What is the reason for the large estimated cost difference between off-site and on-site incineration alternatives proposed in the feasibility study report?

RESPONSE: Off-site incinceration costs include packaging, handling, and transportation costs not necessary for on-site incineration. The cost per ton for actual incineration services are higher off-site, and an independent incinerator operator would be reluctant to devote

an entire two-year burning schedule to one customer. This time delay would cause increased costs for mobilization and stockpile management.

QUESTION: What dangers exist for residents that live in close proximity to the proposed incinerator site, from emissions released during operation of the incinerator?

RESPONSE: Prior to operating the incinerator, a trial burn must be performed to ensure that the emissions meet stringent state and federal air pollution standards. The incinerator will not be allowed to operate without this effectiveness demonstration. During the actual incineration of wastes, the emissions are monitored constantly. If any emission standard is exceeded, the unit will be immediately shut down until a cause is found and corrected. These very strict operating guidelines will ensure the safety of residents in the area.

ISSUE: Contamination (Incineration)

QUESTION: What percentage of PCBs now found at the plant property site will be destroyed or removed?

RESPONSE: The removal requirement for operation of the incinerator mandates that 99.9999% of PCBs or volatile organic compounds must be destroyed in the incineration process. The actual percentage of removal of contamination at the site would be difficult to estimate. The removal standard used for this project is geared toward the removal of contaminants that are above the federal and state set safety limits for those contaminants in our environment.

ISSUE: Contamination (Building Management)

QUESTION: What is proposed to be done with the EUC plant building?

RESPONSE: The plan preferred by the IEPA would require demolition and removal of all plant site structures.

QUESTION: What was the cost estimate for cleaning and decontamination of the buildings?

RESPONSE: The cost estimate for decontamination was $6 to $7 million. There is also some question as to whether the building can be effectively decontaminated.

QUESTION: If the building is demolished, does the IEPA plan to rebuild the structure?

RESPONSE: No.

QUESTION: Why was demolition of the structure chosen over decontamination?

RESPONSE: The decontamination, if even possible or effective, would cost between $6 and $7 million. The value of the building has been estimated at $1.5 million. From an economic standpoint decontamination would not be feasible.

QUESTION: Are the cost estimates listed in the feasibility study in 1988 adjusted dollars?

RESPONSE: Yes.

ISSUE: **Procurement (Contractor Selection)**

QUESTION: In the course of dividing the project to expedite the start of excavation for the off-site project, IEPA has created the problem of the requirement for the on-site project, of procurement under

40 CFR Part 33., to select a contractor to do the work. If it is IEPA's goal to expedite the project start, mitigate costs and minimize impacts to the environment and local areas by compressing the incinerator operating and excavation schedule, would it not seem reasonable to allow the same contractor to do both project segments?

RESPONSE: Yes, logically, and from an environmental, cost effectiveness, and a timely project completion viewpoint, that course of action would seem most reasonable. That does not relieve our agency of the requirement to bid the project through federal procurement procedures. It is possible to request an exemption or variance from that requirement from the U.S.EPA Regional Administrator. Our agency will pursue that course of action and relay to the U.S.EPA, any comments that are made by concerned parties.

QUESTION: Would it be possible to add one more alternative to the project, to explore the possibility or mechanism by which Westinghouse Inc. can be hired to complete the on-site project in addition to the off-site project without going through procurement proceedings?

RESPONSE: Though an alternative cannot be added to the feasibility study at this late date, your comments will be forwarded to the U.S.EPA for their review and your comments will be a part of the permanent record.

QUESTION: I agree with the previous statement about allowing Westinghouse Inc. to also undertake the on-site project. Would it not make sense to do so?

RESPONSE: Yes, logically it would make sense to have one contractor perform both the on-site and off-site segments.

QUESTION: If local residents or public officials wrote letters to the IEPA regarding our desire to have one contractor perform both project segments, would that be of any value or would the U.S.EPA see them?

RESPONSE: Yes, copies of your comments will appear in the responsiveness summary if they are postmarked prior to midnight, February 19, 1988 or presented at this hearing. All testimony or written comments presented at this hearing, will also be a part of the permanent hearing record and transcript. Any comments our agency receives after February 19, 1988 regarding this procurement issue will be forwarded to the U.S.EPA and will be considered in making the decision on procurement requirements.

REMAINING CONCERNS

Two major concerns of local city officials, health department officials and county board officials were raised during the hearing and comment period. The first concern expressed the desire that the EUC property be cleaned up and returned to unrestricted use status, ruling out the no-action, on-site landfill and multilayer capping alternatives. The second and by far the most broadly held concern for all groups addressed the proposed IEPA procurement action regarding the award of the contract for the on-site EUC property project. The concern is, if a contractor other than the contractor currently performing the remedial action for the off-site project segment is the lowest responsive and responsible bidder for the on-site segment, increased costs, environmental risks, and project completion delays would be the result. The concerned parties want a variance or waiver of the procurement process for the on-site project to allow one contractor to perform both project segments.

The IEPA will explore the procurement exception or variance issue with the U.S.EPA Regional Administrator and will attempt, as always, to expedite the completion of the project. The community relations staff will maintain open channels of communication with the LaSalle community, to identify citizen needs and concerns that may surface during completion of the project.

Listed below are the names of persons that submitted written comments to request that the U.S.EPA grant a waiver of procurement requirements for the on-site project segment, and award Westinghouse Inc. the on-site contract.

The Honorable Patrick D. Welch
State Senator, 38th District

The Honorable James Brady
Mayor, City of LaSalle

Rober R. Tarter, R.S., M.A.
Public Health Administrator, LaSalle County Health Department

Greg Chance, R.S.
Director of Environmental Health, LaSalle County Health Department

Jeff Hayden, Third Ward Alderman
City of LaSalle

Edward Iwaszek, Fourth Ward Alderman
City of LaSalle

Gail Heller, Alderman
City of LaSalle

Walt Kinczewski, Third Ward Alderman
City of LaSalle

Leo Nosalik, Fourth Ward Alderman
City of LaSalle

Roger R. Sines, Director of Public Works
City of LaSalle

Mary Schmitt
City of LaSalle

William Constantine
City of LaSalle

Esther Constantine
City of LaSalle

FOR FURTHER INFORMATION

Questions about the hearing process and access to exhibits should be directed to the Agency Hearing Officer, John Williams, IEPA, 2200 Churchill Road, P.O. Box 19276, Springfield, Illinois 62794-9276, or phone 217/782-5544.

Technical questions or inquiries should be directed to Project Manager, John Hooker, Division of Land Pollution Control, IEPA, 2200 Churchill Road, P.O. Box 19276, Springfield, Illinois 62794-9276, or phone 217/782-6760.

General questions or inquiries about the Responsiveness Summary should be directed to Community Relations Coordinator Robert Rosen, IEPA, 2200 Churchill Road, P.O. Box 19276, Springfield, Illinois 62794-9276, or phone 217/782-5562.

Additional copies of the Responsiveness Summary are available from Community Relations, IEPA, 2200 Churchill Road, P.O. Box 19276, Springfield, Illinois 62794-9276, or phone 217/782-5562.

Signed John D. Williams
John D. Williams
Agency Hearing Officer

Date February 29th, 1988.

Illinois Environmental Protection Agency
2200 Churchill Road
P.O. Box 19276
Springfield, Illinois 62794-9276

RR/dlh/gh/003

ATTACHMENT IV

PROPOSED PLAN LASALLE ELECTRICAL UTILITIES

[Note: The following pages were attached to the Draft ROD together, those two items composed the complete proposed plan which was distributed.]

PROPOSED PLAN
LASALLE ELECTRICAL UTILITIES
LaSalle, Illinois
January 1988

Section 117(a) of CERCLA, as amended by SARA, requires the Agency to issue a "Proposed Plan" and make such plan available to the public for comment. This document satisfies that requirement in that it: 1) describes the alternatives from the detailed analysis in the Feasibility Study (FS), 2) identifies the preferred alternatives; and 3) provides a brief analysis of the preferred alternatives for the LaSalle Electrical Utilities (LEU) site.

The Proposed Plan for the LEU site is made available with the FS for public review and comment. In addition to the Proposed Plan and FS, other documents, including the remedial investigation (RI) reports, which were used as part of the development process are available for public review also. A complete listing of all documents relevant to this project is contained in the Administrative Record Index which is currently being developed, and will be available by February 17, 1988.

The Proposed Plan for the LEU site is meant to provide all interested parties with a summary of the alternatives evaluated, and the rationale for the Agency's selection of the preferred alternative. The public should review the FS and other pertinent documents as referenced in the Summary of Remedial Alternative Selection, if a more detailed and specific description of the project and the alternatives evaluated is desired.

All documents which have been developed and released to the public are available for public inspection at the following locations:

City Clerk's Office
City of LaSalle
745 Second Street
LaSalle, IL 61301
(815) 223-0077

Bob Rosen
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706
(217) 782-9878

Daniel Caplice
United States Environmental Protection Agency
230 S. Dearborn Street (5HR-11)
Chicago, IL 60604
(312) 886-0397

Written and verbal comments will be accepted from January 18 to February 19, 1988, and addressed in a Responsiveness Summary which will be attached to the formal Record of Decision. All written comments should be addressed to:

Bob Rosen
Community Relations Coordinator
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706
(217) 782-9878

Pursuant Section 117 of CERCLA as amended, a public meeting will be held on Wednesday, February 17, 1988 at 7:00 p.m. at the LaSalle, Illinois Howard Johnson located at the intersection of I-80 and U.S. 51. Oral and written comments can be submitted at that time. A transcript of the meeting will be made, and will also be available for public review.

ATTACHMENT V

ADMINISTRATIVE RECORD INDEX

ADMINISTRATIVE RECORD INDEX
LASALLE ELECTRICAL UTILITIES
LASALLE, ILLINOIS

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TY
	8	00/00/00	Complaint: In Re Electrical Utilities Co., LaSalle, IL (Civil Administrative Action Pursuant to TSCA)	SSGardebring - USEPA		Pleadings/C
	4	00/00/00	Scope of Work Remedial Action Consulting Engineering Services	IEPA		Reports/Stu
	10	00/00/00	Statement of Work	Ecology & Environment		Reports/Stu
	10	00/00/00	Community Relations Plan for Remedial Investigation and Feasability Study at LaSalle Electric Utilities in LaSalle (LaSalle Co.).	IEPA		Reports/Stu
	60	00/00/00	Special Analysis Form Samples collected and analysis December 1980 to August 1981			Sampling/Da
	5	76/01/22	Check List - Capacitors Date of Inspection 1/22/76	RWLibby - USEPA		Reports/St
	7	76/01/22	Report on Investigation of PCB use at ELC	USEPA & IEPA		Reports/St
	4	79/07/01	PCB Recap - Annual Document Reporting the Location and Disposition of PCBs	RJSmelz		Memorandum
	6	79/10/22	Inspection Report of a plant facility with PCBs on the premises	USEPA		Reports/St
	1	79/12/12	PCB Inspection of ELC	SSStixon - USEPA	USEPA	Memorandum
	2	80/12/16	Investigation of complaint regarding dumping of PCBs onto the ground	BBenning - IEPA	File	Memora
	1	81/02/10	Sampling program of the land surrounding facility	BBenning- IEPA	File	Memorandum

ADMINISTRATIVE RECORD INDEX
LASALLE ELECTRICAL UTILITIES
LASALLE, ILLINOIS

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TY
	5	81/05/19	State of Illinois v. EUC and Richard Hauser Complaint for Injunction and Other Relief	JVanVranken - Asst Atty Gen'l		Pleadings/C
	2	81/05/20	Perimeter Sampling	BBenning - IEPA	File	Memorandum
	5	81/05/26	Complaint For Injunction And Other Relief.	State of Illinois	Electrical Util., et al.	Pleadings/C
	1	81/05/28	Written confirmation of terms concerning the sealing of the Electrical Utilities, Inc. facility	Mary Drake - IEPA	R.Hauser-Electrical Util.	Correspondence
	1	81/05/29	Inspection and sealing of site	BBenning - IEPA	File	Memorandum
	3	81/05/29	Detailing complaint re PCB dumping at EUC and results of subsequent investigation	KPBeckely - IEPA	WECHild - IEPA	Memorandum
	2	81/08/12	Additional sampling to determine possible migration of PCBs	BBenning - IEPA	File	Memorandum
	1	81/09/11	6 Additional samples to be tested for PCB concentration	BBenning - IEPA	File	Memorandum
	1	82/06/15	Letter from property owner asking for results of soil sampling tests conducted on his property on 9/11/81.	Roger J. Dooley	IEPA-Maywood office	Correspondence
	8	82/08/03	People of Illinois v. EUC, Richard Hauser, and Lake Shore National Bank Trust Co. 4486	Illinois Attorney General		Pleadings/C
	8	82/08/03	Complaint in a civil action pursuant to sec. 30 of the Toxic Substance Control Act.	People of the State of Illinois	Electrical Util., et al.	Pleadings/C
	19	82/08/27	Notes on visit to site for sampling; with results	DCozza	File	Memorandum

ADMINISTRATIVE RECORD INDEX
LASALLE ELECTRICAL UTILITIES
LASALLE, ILLINOIS

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT T
	13	82/09/09	Site Inspection	KSnell - Ecology & Environment		Other
	1	82/09/21	Note re lack of ELC inspection by State Fire Marshall			Handwritte
	2	82/10/07	Letter to son of a local property owner explaining the test data results of soil samples taken from his parents land.	Kenneth Bechely - IEPA	Roger R. Dooley	Correspond
	22	82/12/16	HRS Report	TPaukanis - USEPA		Other
	5	82/12/22	Preliminary Assessment	IEPA		Other
	1	83/07/20	Site Status	USEPA		Other
	3	83/07/15	ELC response to request to take action pursuant to Section 107	MTReagan - Atty for ELC	RBowden - USEPA	Correspond
	210	83/08/10	CDC Report and Appendices A - E Immediate Removal Project in July and August 1982	CCastle - USEPA		Reports St
	12	83/08/05	ELC Proposal to Cleanup PCBs at the LaSalle, Il site	RLHauser - ELC	USEPA & IEPA	Reports/St
	6	83/08/17	PCB Analysis on 15 Samples from ELC	WrSanders - USEPA	GRegan - USEPA	Memorandu
	83	83/08/29	Remedial Action Master Plan (RAMP)	CH2M Hill and Ecology & Environment	USEPA	Reports/St
	4	83/09/08	Results from analysis of soil samples taken on June 8,1983 and sent to Mayor Al Sunia and Alderman Florian Konieczny.	William Child - IEPA	see title for recipients	Correspond
	3	83/09/21	Letter to Mrs. and Mr. Dooley indicating the presence of PCB's in soil samples from their bean	Dale Helmens - IEPA	Mr. and Mrs. Dooley	Correspond

ADMINISTRATIVE RECORD INDEX
LASALLE ELECTRICAL UTILITIES
LASALLE, ILLINOIS

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TYP
			field.			
	4	83/09/21	Letters to four households-Kuhn, Dyer, Toose and Vacarro informing them that no PCB's were detected in soil samples from their residences.	Dale Helgers - IEPA	see title	Correspondar
	2	83/09/26	Notice Letter	PSConstantelos - USEPA	RHauser - ELC	Correspondar
	6	83/10/19	Enclosing Site map and sampling results from recent emergency action sampling	PRevar - USEPA	RHauser - ELC	Correspondar
	2	83/10/25	ELC Emergency Action; Recommendation not to harvest part of soybean field	PSConstantelos - USEPA	RDooley	Correspondar
	1	84/01/24	Report on LaSalle Electrical Utilities/City Council Presentation.	Greg Wienand - IEPA	Bob Cowles&Ellis Frank-IEPA	Report/Study
	1	84/01/31	Letter concerning leaking drums of PCB's at Electrical Utilities Company Plant site in LaSalle, Illinois.	Richard L. Hauser-Electrical Util.	Dale Helgers - IEPA	Correspondar
	2	84/02/02	Results of soil analysis from the immediate area indicate that it is not considered necessary to clean up the contamination of the lawns around the site	R.D.Kimbrough - DHHS	GAJones - IEPA	Memorandum
	2	84/02/17	Inspection of site to check for any possible leaks and to familiarize themselves with the plant.	Dale Helgers-IEPA	File	Memorandum
	110	84/05/00	Signed Consent Agreements from area property owners to the IEPA for entry upon their property for the purpose of collecting information, acquiring technical data, and conducting such investigations as may be required.	various	IEPA	Permits

ADMINISTRATIVE RECORD INDEX
LASALLE ELECTRICAL UTILITIES
LASALLE, ILLINOIS

FICHE/FRAME	PAGES	DATE	TITLE	AUTHOR	RECIPIENT	DOCUMENT TY
	46	84/07/06	Personnel Safety Plan EUC Revision 1	IEPA		Reports/St.
	135	84/07/06	Quality Assurance Project Plan (QAPP) for the RI/FS of EUC	Ecology & Environment		Reports/St.
	1	85/02/13	Results from groundwater monitoring indicate TCE in wells	GRMichaud - IEPA	RSines - City of LaSalle	Correspondence
	2	85/03/05	Results of Soil Analysis indicate that the immediate area surrounding the EUC is heavily contaminated with PCBs	DHS	GAJones - DHS	Memorandum
	4	85/03/11	PCBs in Residential Soil Near EUC, LaSalle, IL	GAJones - DHS	LAFabinski - USEPA	Memorandum
	5	85/04/12	Immediate Removal Request for EUC	JBarnette - USEPA	WHazelwood - USEPA	Memorandum
	1	85/04/26	Emergency Response at EUC	JBarnette - USEPA	RBowden - USEPA	Correspondence
	1	85/05/22	Review of CDC's Risk Assessment for PCBs in Residential Soils	JNClark - USEPA	LFabinski - CDC	Memorandum
	20	85/06/04	Report On Preliminary Remedial Technologies	Keith Boyd-Black & Veatch	D.Crancall-IEPA	Reports/St
	26	85/06/28	Draft Exposure Assessment Electrical Utilities Company Site LaSalle, Illinois	Black & Veatch	IEPA	Reports/St
	1	85/11/12	Confirmation of results of groundwater monitoring that show the prescence of Trichloroethylene.	Greg Michaud - IEPA	R.Sines- City of LaSalle	Correspond
	3	85/12/02	IEPA Record of Decision Drum Removal And Incineration	Richard Carlson - IEPA		Memorandum
	1	85/12/26	Immediate Removal Action at EUC	JBarrette - USEPA	RBowden - USEPA	Correspond
	5	86/01/29	Press Release entitled "Waste Removal Begins	Casteel & Michaud - IEPA		Press Rele